Optional Organisation Logo

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| Sample Aviation Pty Ltd  PART 142 EXPOSITION  Volumes 1 - 10 |

This Exposition has been developed in accordance with the Civil Aviation Safety Regulations 1998 (CASR) to comply with regulation *141.260* Part 141 operators - content of operations manual and regulation *142.340* Part 142 operators - content of Exposition. As it relates to the Part 141 certificate, this document is taken to be the Operations Manual required by regulation *141.260*.

Operators should monitor amendments to the CASA Sample Exposition and Civil Aviation Legislation and revise their document accordingly.

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Training Strategy

Regulation Reform Program

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# PRINCIPAL DOCUMENT

## General

### Preliminary

#### CEO Statement

I, [Chris Sample], the Chief Executive Officer, have the corporate authority to ensure that all activities required by the operation are financed and provided to the standard required and that all necessary resources are available to enable compliance with this Exposition.

In support of the ongoing commitment to safety by [Sample Aviation], I will establish and promote policies for the safety management for Sample Aviation and its employees in accordance with this Exposition.

[Sample Aviation] is committed to providing the highest standard of performance in order to meet the competencies specified in the CASR Part 61 Manual of Standards.

This Exposition defines the procedures upon which the Part 141 Certificate and the part 142 authorisation of Sample Aviation, as a Part 141 and Part 142 operator, are based.

This Exposition is approved by CASA and must be complied with to ensure all authorised activities are conducted safely and to the standards required by legislation.

The procedures included or referred to in this Exposition do not override the necessity of complying with any new or amended regulations published by CASA from time to time; where these new or amended regulations are in conflict with these procedures.

Our Part 141 Flight Training Certificate and our Part 142 authorisation will continue while CASA is satisfied that these procedures are being followed. CASA reserves the right to suspend, vary or cancel the Part 141 Flight Training Certificate and our part 142 authorisation, as applicable, if CASA has evidence that the procedures are not being followed and regulatory standards are not being upheld.

**Signed: Date:**

**[Chris Sample]**

**Chief Executive Officer**

**[Sample Aviation Flight Training Pty Ltd]**

#### Exposition details and List of volumes

|  |  |  |
| --- | --- | --- |
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| 4C2 | **Error! Not a valid result for table.** |
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| VOLUME 7 | FATIGUE MANAGEMENT MANUAL |
| VOLUME 8 | STOM – [Global 123 FSTD] |
| VOLUME 9 | APPENDICES AND FORMS |
| VOLUME 10 | TRAINING SYLLABUSES |

#### List of Exposition amendments and revision history

| Revision No | Date | Amendment details | Amended by | Date of inclusion |
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#### Exposition distribution & acknowledgement record

Instructions:

1. All instructors must sign this sheet in the master hard copy of the Exposition. The master copy is held by the HOO.
2. By signing this acknowledgement record, instructors are certifying that they have read the Exposition, understood and agreed to comply with the procedures, instructions and data contained within.
3. Each person who is required to sign must do so initially before commencing operations with the company and after any amendment to the Exposition.

| Version | Name | Signature | Date |
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A copy of this Exposition distribution & acknowledgement record can be found at appendix 9B1 and new copies should be printed and inserted here as required.

#### Definitions, abbreviations, terms and conversion factors

##### Definitions

In this Exposition the following terms are defined:

* “[***Sample Aviation***]” or “[*Sample Aviation Flight Training Pty Ltd*]” means the Part 141 certificate and Part 142 authorisation holder
* the “***Company***” **or** “**operator**” means [Sample Aviation]
* “the ***CEO***” means the Chief Executive Officer of [Sample Aviation Flight Training Pty Ltd].
* “the ***HOO***” means the Head of Operations of [Sample Aviation Flight Training Pty Ltd].
* “the ***SM***” means the Safety Manager of [Sample Aviation Flight Training Pty Ltd].
* “***checker***” means a pilot appointed by the company to perform internal training and checking duties
* “***integrated training***” means an intensive course of training that is designed to ensure that a course participant receives ground theory training integrated with practical flight training conducted by [Sample Aviation] and:
* is conducted according to a syllabus that satisfies the knowledge and flight standards specified in the Part 61 Manual of Standards for the grant of a commercial pilot licence; and,
* is designed to be completed within a condensed period of time

In this Exposition the following words are used to convey levels of obligation:

* “***must***” is used in relation to an obligation or requirement that is legislated
* “***should***” is used to signify a recommendation that is not legislated, but must still be complied with as being a requirement adopted by the operator.

##### Abbreviations and Terms

| Abbreviation/Term | Meaning |
| --- | --- |
| A or (A) | **A**eroplane |
| ABN | **A**ustralian **B**usiness **N**umber |
| AC | **A**dvisory **C**ircular |
| AFM | **A**ircraft **F**light **M**anual (or Pilot Operating Handbook – POH) |
| AGL | **A**bove **G**round **L**evel |
| AIP | **A**eronautical **I**nformation **P**ublication Australia |
| ALA | **A**ircraft **L**anding **A**rea |
| AOC | **A**ir **O**perator's **C**ertificate |
| ARN | **A**viation **R**eference **N**umber |
| ASA | **A**ir**S**ervices **A**ustralia |
| ATOM | **A**pproved **T**esting **O**fficer **M**anual |
| ATSB | **A**ustralian **T**ransport **S**afety **B**ureau |
| AVGAS | **AV**iation **GAS**oline |
| CAA | **C**ivil **A**viation **A**ct 1988 |
| CAAP | **C**ivil **A**viation **A**dvisory **P**ublication |
| CAOs | **C**ivil **A**viation **O**rders |
| CAR | **C**ivil **A**viation **R**egulations 1988 |
| CASA | **C**ivil **A**viation **S**afety **A**uthority |
| CASR | **C**ivil **A**viation **S**afety **R**egulations 1998 |
| CAVOK | **C**loud **A**nd **V**isibility **OK**ay |
| CEO | **C**hief **E**xecutive **O**fficer |
| CENSAR | **Cen**tralised database to store **SAR**TIME managed by Airservices Australia |
| CofA | **C**ertificate **of** **A**irworthiness |
| CPL | **C**ommercial **P**ilot **L**icence |
| CTA | **C**on**t**rolled **A**irspace |
| CTR | **C**on**tr**ol Zone |
| DAME | **D**esignated **A**viation **M**edical **E**xaminer |
| DAMP | **D**rug and **A**lcohol **M**anagement **P**lan |
| ELT | **E**mergency **L**ocator **T**ransmitter |
| EPC | **E**xaminer **P**roficiency **C**heck |
| ERSA | **E**n **R**oute **S**upplement**,** **A**ustralia - a CASA/Air Services Australia document listing full information, including layout diagrams, on all licensed (and some unlicensed) aerodromes |
| FCM | **F**light **C**rew **M**ember - FCM has the same meaning as:   * CAO 48.1 at para 6.1 * a Part 141 instructor or a Part 142 instructor. |
| FDP | **F**light **D**uty **P**eriod - means a period of time which:   * Starts when a person is required by an AOC holder to report for a duty period in which one or more flights as an FCM are undertaken. * Ends not less than 15 minutes after the end of the person’s final flight as an FCM. |
| FE | **F**light **E**xaminer |
| FEH | **F**light **E**xaminer **H**andbook |
| FER | **F**light **E**xaminer **R**ating |
| Flight Crew | A reference to a company flight instructor and their student in the context of Part 141 or Part 142 Flight Training |
| FOI | **F**lying **O**perations **I**nspector (CASA) |
| FPC | **F**lightInstructor **P**roficiency **C**heck |
| FRMS | **F**atigue **R**isk **M**anagement **S**ystem |
| FSTD | **F**light **S**imulation **T**raining **D**evice |
| FTM | **F**light **T**raining **M**anual |
| FTO | **F**light **T**raining **O**rganisation |
| HF | **H**uman **F**actors |
| HOO | **H**ead **O**f **O**perations |
| IAW | **I**n **A**ccordance **W**ith |
| IFR | **I**nstrument **F**light **R**ules |
| IT&C | **I**nternal **T**raining **&** **C**hecking |
| ITCS | **I**nternal **T**raining & **C**hecking **S**ystem |
| ISO | **I**nternational **S**tandards **O**rganisation |
| METAR | **M**eteorological **A**erodrome **R**eport |
| MOS | **M**anual **o**f **S**tandards |
| MR | **M**aintenance **R**elease |
| NAA | **N**ational **A**viation **A**uthority |
| NM | **N**autical **M**ile |
| NAVEX | **Nav**igation **Ex**ercise |
| Non-Significant change | Any change not otherwise defined as a significant change in relation to Part 141 or Part 142 Flight Training |
| NOTAM | **NO**Tice **T**o **A**ir**M**en – a document issued by CASA or ASA to provide operational information to pilots which supersedes that available in other publications |
| NTS | **N**on-**T**echnical **S**kills |
| NVFR | **N**ight **V**isual **F**light **R**ules (or Night VFR) |
| PCA | **P**lanning **C**hart **A**ustralia |
| PIC | **P**ilot-**i**n-**C**ommand - the pilot responsible for the operation and safety of the aeroplane |
| POH | **P**ilot **O**perating **H**andbook |
| PPL | **P**rivate **P**ilot **L**icence |
| PUS | **P**ermissible **U**n**s**erviceability |
| RPL | **R**ecreational **P**ilot **L**icence |
| S&P | **S**tandardisation and **P**roficiency |
| SAR | **S**earch **a**nd **R**escue |
| SARTIME | **Time** after which a **S**earch **a**nd **R**escue operation is mounted |
| Significant Change | Any change which requires the approval of CASA. Refer to *CASR 141.025* and *142.030* for more information |
| SM | **S**afety **M**anager |
| SMS | **S**afety **M**anagement **S**ystem |
| STOM | **S**ynthetic **T**rainer **O**perations **M**anual |
| Student | Any person undergoing training at [Sample Aviation] for the grant of a Part 61 qualification other than company instructors |
| TCDS | **T**ype **C**ertificate **D**ata **S**heet |
| TAF | **T**erminal **A**rea **F**orecast |
| T&C | **T**raining **& C**hecking |
| VFR | **V**isual **F**light **R**ules |
| VTC | **V**isual **T**erminal **C**hart |
| VNC | **V**isual **N**avigation **C**hart |
| W&B | **W**eight **& B**alance |
| WAC | **W**orld **A**eronautical **C**hart |

##### Conversion factors

Although metric units should be used where practical, imperial units are frequently encountered, particularly with reference to aircraft manufactured in the USA. Staff and students must therefore be familiar with their use.

Furthermore, staff and students must also be aware that English imperial measurements are usually different to U.S. measurements, particularly with respect to volume and they should pay particular attention to conversions involving fuel volumes and fuel weights (i.e. US Gallons to Litres, Litres to US Gallons, US Gallons to pounds and US Gallons to kilograms).

**>> Conversion factors for units commonly used in aviation are listed below <<**

| Conversion Factors | |
| --- | --- |
| 1 Pound (lb) | 0.45359 Kilogram (Kg) |
| 1 kg | 2.2046 lb |
| 1 (metric) tonne | 0.98 (imperial) ton |
| 1 Pound per sq. in (psi) | 6.8947 Kilopascal (kPa) |
| 1 kPa | 0.145 psi |
| 1 Inch (in) | 25.4 Millimetres (mm) |
| 1 Foot (ft) | 0.3048 Metre (m) |
| 1 metre | 3.28 feet |
| 1 Statute mile | 1,609 metres |
| 1 Nautical mile (nm) | 1,852 metres |
| 1 nautical mile | 1.15 statute miles |
| 1 kilometre | 0.61 statute mile |
| 1 Millibar (mb) | 1 Hectopascal (hPa) |
| 1 Millibar (mb) | 0.1 Kilopascal (kPa) |
| 1 Imperial gallon | 4.546 Litres (l) |
| 1 imperial gallon | 1.201 US gallon |
| 1 US gallon | 3.785 Litres (l) |
| 1 US quart | 0.946 Litre (l) |
| 1 litre | 0.264 US gallons |
| 1 lb AVGAS (SG 0.71) | 0.631 litre |
| 1 Cubic foot (ft³) | 28.317 Litres (l) |
| 1 Acre | 0.4047 Hectares |
| Degrees (°) Fahrenheit | [1.8 x °C] + 32 |
| 1 hp | 0.746 kW |
| 1 kW | 1.34 hp |
| 1 Inch Pound (in lb) | 0.113 Newton Metres (Nm) |
| 1 Foot Pound (ft lb) | 1.356 Newton Metres (Nm) |

#### Operator information

|  |  |
| --- | --- |
| Company name & registration | |
| **Name of company** | [Sample Aviation Flight Training Pty Ltd] | |
| **Trading name** | [xxxxxxx] | |
| **ARN** | nnnnnnn | |
| **ABN** | [nn nnn nnn nnn] | |

|  |  |  |
| --- | --- | --- |
| Address & contact details | | |
| **Operational headquarters** | Address: | [142 Sample Drive]  [Sample City Airport]  [Sample NS NNNN] | |
| Phone: | [0X-xxxx-xxxx] | |
| Fax: | [0X-xxxx-xxxx] | |
| Email: | [[admin@sampleaviation.com](mailto:admin@sampleaviation.com)] | |
| **Main training base** | Address | [Same as operational headquarters] | |
| Phone | [Same as operational headquarters] | |
| **Registered Office Address** | | [If required for an ACN holder] | |

|  |  |  |
| --- | --- | --- |
| Key Personnel | | |
| **Position** | **Name** | **Phone** | | **Email** |
| CEO | [Chris Sample] | [04xx-xxx-xxx] | | [[ceo@sampleaviation.com](mailto:ceo@sampleaviation.com)] |
| HOO | [Leslie Sample] | [04xx-xxx-xxx] | | [[hoo@sampleaviation.com](mailto:B.Sample@sampleaviation.com%20)] |
| SM | [Sam Safety] | [04xx-xxx-xxx] | | [[sm@sampleaviation.com](mailto:sm@sampleaviation.com)] |

|  |  |  |
| --- | --- | --- |
| Other operational personnel | | |
| **Person** | **Name** | **Phone** | | **Email** |
| Senior Instructor 141 | [Fname Lname] | [04xx-xxx-xxx] | | [[Senior141@sampleaviation.com](mailto:Senior141@sampleaviation.com)] |
| Senior Instructor 142 | [Fname Lname] | [04xx-xxx-xxx] | | [[Senior142@sampleaviation.com](mailto:Senior142@sampleaviation.com)] |
| Operations Officer | [Fname Lname] | [04xx-xxx-xxx] | | [[opso@sampleaviation.com](mailto:opso@sampleaviation.com)] |

|  |  |  |
| --- | --- | --- |
| Third party service providers | | |
| **Service** | **Contact name** | **Phone** | | **Email/www** |
| A/C Maintenance | [Mr Fixer] | [04xx-xxx-xxx] | | [[MrFixer@nnn.com](mailto:MrFixer@nnn.com)] |
| Aviation fuel services |  |  | |  |
| AVFAX |  |  | |  |
| NAIPS |  |  | | <http://www.airservicesaustralia.com/flight-briefing> |
| AirServices Pubs |  |  | |  |
| ATSB *(notifications)* |  | 1800-011-034 | |  |
| CENSAR |  | 1800-814-931 | |  |
| AUSAR |  | 1800-815-257 | |  |
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#### Organisational structure

##### Overview

[Sample Aviation] Flight Training Pty Ltd] (the ***Company***) is a private company. [Sample Aviation] holds authorisations to conduct Part 141 non-integrated flight training and Part 142 integrated flight training in aeroplanes.

Full-time Integrated CPL training is conducted in [**x**] intakes per year of approximately [**x**] full-time students each time and is overseen by a Senior Instructor responsible for Part 142 training. Each course is scheduled to take place over a period of approximately [**x**] months however an additional [**x**] weeks/months is permitted to cater for issues such as, but not limited to, prolonged adverse weather, unexpected aircraft unavailability or student illness.

Part 141 non-integrated PPL and non-integrated CPL training and training for the RPL, ME Aeroplane Class and Night VFR rating is conducted on a casual ad hoc basis and is overseen by a Senior Instructor responsible for Part 141 training.

To meet the training demands, [**x**] full-time instructors are allocated for CPL integrated training, which is overseen by a Senior Instructor responsible for the company’s authorised Part 142 training.

Depending on demand and the level of flight training activity, instructors are employed on a full-time, part-time or casual basis.

In order to effectively manage the safety and integrity of the training conducted by the company the following systems are utilised and underpin all company operations:

* a Safety Management System;
* a Training Management System; and
* an Internal Training and Checking System

These systems are described in detail in this Exposition, in their respective Volumes.

##### Authorised Flight Training activities

[Sample Aviation] is authorised by CASA to conduct:

* Part 141 flight training for the grant of:
* RPL (A)
* PPL (A)
* CPL (A)
* Night VFR Rating (A); and
* SE and ME Aeroplane Class ratings
* Part 142 training for:
* Integrated flight training for the grant of a PPL (A) and CPL (A).

##### Other operational activities

Reserved

##### Organisational diagram

[Sample Aviation] is governed by the Directors and they are responsible for setting and overseeing the strategic direction and policies of the organisation.

To manage authorised flight training activities, the company has the following key personnel:

* Chief Executive Officer (CEO)
* Head of Operations (HOO)
* Safety Manager (SM)



##### Organisational reporting structure & communication (internal)

The following policy applies to reporting and communication by personnel within the organisation:

1. The CEO reports to the Company Directors and communicates with the HOO and Safety Manager.
2. The HOO reports to the CEO, and communicates with the:

* Senior instructors
* Flight Examiner(s)
* Ground Instructor
* Operations Officer
* Head of Internal Training and Checking (if not the HOO)

1. The Safety Manager reports to the CEO and communicates with the HOO.
2. The Head of Internal Training and checking reports to the HOO and communicates with the Senior Instructors and liaises with instructors.
3. The Senior Instructors and Flight Examiner(s) report to the HOO and communicate with the Head of Internal Training and Checking.
4. The Ground Instructor reports to the HOO and communicates with the Senior Instructor Part 142.
5. Instructors report to either the Part 141 Senior Instructor or the Part 142 Senior Instructor.
6. The Operations Officer reports to the HOO and liaises with all staff. The Operations Officer coordinates maintenance with third party providers.

##### Communications with CASA and third party providers

As part of the day-to-day running of the company, regular and open communication with CASA and third party service providers is essential for a range of administrative and operational issues associated with the activities conducted by [Sample Aviation]. In order to clarify who is responsible for each of the different issues that may arise, the Directors have authorised the key persons mentioned below to manage external communications IAW the following protocols:

1. The *CEO* is to contact and liaise with CASA and third party service providers as required on behalf of the company with respect to all administrative and company (i.e. corporate) related matters and those matters arising out of the company’s change management process (0). Examples include matters such as:

* Negotiating contractual arrangements with prospective maintenance providers
* Requesting CASA approval of the nomination of key personnel
* Negotiating contractual or cross hire arrangements for the supply of new or additional aircraft
* Communicating with computer equipment providers with respect to the company’s IT infrastructure and needs.
* Communicating and following-up with CASA on matters resulting from audits or other surveillance.
* Communicating with contractors and service providers for the supply of trade services to maintain, improve or update company infrastructure such as buildings, furniture and other office equipment.

1. The *HOO* is to contact and liaise with CASA and third party service providers on behalf of the company with respect to all flight operations matters. Examples include matters such as:

* Requesting approval for plans to set up a secondary training base
* Communicating with CASA to facilitate a company staff member being assessed for a Flight Examiner rating
* Communicating with a maintenance provider to organise planned maintenance or discuss matters of significance with the regard to company aircraft. The operations officer would typically also be included in communications of this type.
* Managing company access to facilities such NAIPS
* Communicates with relevant providers regarding the procurement of aviation related documents such as AFMs, the AIP and civil aviation legislation.
* Communicating with external flight examiners to coordinate instructor proficiency checks for staff.

1. The Safety Manager is to contact and liaise with CASA, the ATSB and third party service providers on behalf of the company with respect to all SMS and safety related matters. Examples include matters such as:

* Liaising with the ATSB following aviation related incidents involving company aircraft and / or company personnel or students.
* Liaising with training providers for the delivery of HF/NTS training
* Communicating with CASA with regard to changes to the company’s SMS or SMS Manual.
* Communicating with internal and external stakeholders when investigating matters covered by the company SMS.
* The Safety Manager is to keep other key personnel informed as appropriate, IAW published internal company communication protocols with respect to the above matters.

1. When contacting CASA, it is preferred that initial contact is made by phone with the manager of the oversighting CASA CMT or the CASA inspector concerned, to discuss options and the best way of initiating CASA involvement in the matter concerned.
2. When contacting other third party service providers, identify an appropriate person to discuss the issues and decide on the best means of moving the matter forward.
3. Once initial contact has been made, this should be always be followed up by email. The key person communicating with CASA or the third party service provider should always include the other relevant company key personnel on the distribution list of the email.
4. In the event that the nominated key person is not able to handle the matter the other key person (from the above list), or their nominated standby are authorised to initiate communication and action, pending the matter being taken over by the appropriate person when they are again available.

### Key Personnel

#### All Key Personnel positions must be filled

It is a requirement under *CASR 142.100 (1) (c)* that all of the key personnel positions within the company and prescribed by legislation must be filled. In order to meet this legislated requirement, the company has adopted a policy of appointing “standby” personnel to the Key Personnel positions so that when the substantive person is absent or unable to fulfil the duties of the position, there is always a “standby” person available.

#### Appointment of Key Personnel

Prior to the new appointment of key personnel into either the substantive or standby position, the CEO will review the nominee’s application material to ensure the minimum experience and qualification criteria are met. Where the key personnel to be appointed is the position of CEO, the directors of the company or person nominated by them shall perform such a review.

When reviewing the application, the CEO should be mindful of the company’s requirements for these key positions in addition to any qualifications and experience mandated by legislation.

#### Appointment of standby Key Personnel

Persons appointed to standby key personnel positions are subject to the same selection criteria as those persons nominated to the substantive positions. It is also company policy that each of the standby Key Personnel be included in all management communications and are given the opportunity on a regular basis to perform the duties of the role so that they are ready to fill the position at short notice should the need arise.

#### Notification to CASA of the inability of a key person to carry out their responsibilities

It is the intention of the company to notify CASA about planned temporary absences of more than 30 days prior to the commencement of the absence, however there will be occasions where the company does not have the benefit of being able to plan for an absence due to a number of reasons.

In either situation, if the company becomes aware of a circumstance where a key person will not be able to carry out their responsibilities for a period of more than 30 days the following procedures will apply:

* If another person is already approved to act in the standby capacity:
* one of the operators other key personnel must advise CASA within three (3) days by email; or
* If another person is *not* already approved to act in the standby capacity:
* one of the operator’s other key personnel must advise CASA within 24 hours by email and if necessary, a follow up phone call, within 3 days of becoming aware of the circumstance

NOTE: Notwithstanding the provisions of para 1A2.3, sufficient time must be allowed for the standby person to re-familiarise themselves with the duties and responsibilities of the key personnel position they are standing-in for.

#### Absence or inability of key personnel to carry out their responsibilities

##### Absence of the CEO

The [Sample Aviation] standby CEO, [Leslie Sample] will carry out the responsibilities of the CEO when the CEO cannot carry out those responsibilities.

##### Absence of the Head of Operations (HOO)

The [Sample Aviation] standby HOO, [FirstName LastName] will carry out the responsibilities of the HOO when the HOO is on leave or cannot carry out those responsibilities for any other reason.

##### Absence of the SM

The [Sample Aviation] standby SM, [FirstName LastName] will carry out the responsibilities of the SM when the SM is on leave or cannot carry out those responsibilities for any other reason.

#### Unforeseen absences of key personnel

In the event of an absence of certain key personnel and the nominated standby person/s are not available, the following provisions apply IAW *CASR 142.100(1) (f) & (g)*.

1. The absence must be unforeseen.
2. The CEO position and the SM position can only be occupied by the same person for a period of *no more than 7 consecutive days*.
3. The HOO position and the SM position can only be occupied by the same person for a period of *no more than 7 consecutive days*.

If the company holds an approval under regulation *142.040*, the period mentioned in the approval will take precedence.

#### Key personnel familiarisation training

##### Policy

IAW with regulations *141.115* and *142.170*, all key personnel employed by the company are required to undergo familiarisation training before they carry out the responsibilities of their position. This familiarisation training is managed by the company’s Internal Training and Checking (IT&C) System. More information can be found in section VOLUME 3 of this Exposition, paragraph 3A5.3.

#### Chief Executive Officer (CEO)

##### Name of the CEO

|  |  |
| --- | --- |
| Chief Executive Officer | |
| Substantive CEO: | [Chris Sample] |
| Standby CEO: | [Les Sample] |

##### CEO – Mandatory experience

The CEO must have sufficient and relevant experience in air operations to enable the company to safely conduct operations IAW this Exposition and applicable legislation. Employment experience must include the management of organisations, finance and people.

[Sample Aviation] requires that the holder of the CEO position have the following minimum experience:

1. one year operational employment within an air transport operation or FTO;
2. three continuous years managerial employment with the same employer;
3. two continuous years of direct management responsibilities for a least 10 subordinates; and
4. management experience with financial responsibility.

##### CEO Duties

The CEO is responsible for discharging the following duties:

1. Reviewing the planned kinds and volume of training, including:

* consulting with the HOO to determine the number and qualifications of instructors, required to safely and effectively complete the anticipated flight training
* on at least a yearly basis or prior to major changes in operations, review the suitability of the company’s management and resourcing structure
* ensuring that training resources can be provided to deliver the anticipated flight training.

1. Ensuring that the HOO has:

* carried out appropriate corrective action on all deficiencies identified at audits
* monitored standards of training IAW section 1A8.4.

1. Carry out the continuous improvement process described in section 1A3.3.1 in conjunction with the HOO.
2. Review the Exposition and apply as required, the change management procedures described in section 0.
3. At least yearly, or more regularly as required, review key personnel performance by:

* checking that their conduct is IAW the Exposition and civil aviation legislation and entering the outcome of this assessment on the person’s file
* taking appropriate action where unsatisfactory performance is identified.

1. Liaise with the Safety Manager and review the operation of the SMS to ensure proper implementation and ongoing management (refer to VOLUME 5).
2. Review reports provided by the Safety Manager on incidents, accidents and trending information.
3. Review audit reports including reports on safety performance indicators and targets that are provided by the safety manager and monitor the management of the safety management system.
4. At the completion of programmed Part 142 training for the year call for, chair and record, a meeting between the HOO, Safety Manager, Senior Instructors and Operations Officer to review the adequacy of the management structure, infrastructure and personnel resourcing was for that year. This will provide a basis for continued confidence for the following year should operational needs remain consistent. Refer to Form 9B2.
5. If required from this meeting make a submission for an increase in resourcing, including financial resourcing, which may then be presented to the Company Directors for approval.
6. Ensure that an organisational structure is maintained where the safety manager is independent and not subject to undue influence (guidelines and policy are detailed in the company SMS).
7. Maintain an up-to-date register of key personnel and senior operational staff using Company Form 9B14.

NOTE: While the CEO may delegate any of the duties listed above to suitably qualified, trained and competent personnel, the responsibility and accountability remains with the CEO.

#### Head of Operations (HOO)

##### Name of the HOO

|  |  |
| --- | --- |
| Head of Operations | |
| Substantive HOO: | [Les Sample] |
| Standby HOO: | [FirstName LastName] |

##### Head of Operations (HOO) - Mandatory qualifications and experience

[Sample Aviation] conducts flight training under Part 141 and Part 142 of the CASR and to meet the minimum requirements that satisfy both parts of the legislation, the following current qualifications and experience are the minimum required to be employed by [Sample Aviation] as the HOO:

1. A valid Class 1 Medical Certificate issued by CASA.
2. A CASA issued Commercial pilot licence [CPL(A)] with aeroplane category rating and the following additional Part 61 qualifications:
3. Single and Multi-engine aeroplane class rating
4. Night VFR Rating with an aeroplane night VFR endorsement
5. Flight instructor rating with the following training endorsements:

* Grade 1 aeroplane;
* Night VFR;
* Multi-engine aeroplane class rating; and
* Design Feature.

1. A Flight Examiner Rating with the following Flight Examiner endorsements:

* English Language assessment endorsement;
* Private pilot licence flight test endorsement;
* Commercial pilot licence flight test endorsement.

1. Have at least 500 hours of flight time on the [Cessna C172], which is the kind of training aircraft used by [Sample Aviation] to conduct the most significant proportion of its training activities.
2. Evidence of having satisfactorily conducted or managed air operations under an AOC for at least six months.
3. Is sufficiently knowledgeable in matters regarding safety and aviation regulation so as to be able to lead and safely manage the company’s activities IAW with this Exposition and civil aviation legislation.

##### Head of Operations (HOO) - Desirable qualifications and experience

Information: Additional attributes are in excess of regulatory requirements

In addition to the mandatory requirements listed above, the appointed HOO should also have the following experience, capabilities and skills:

1. A Flight Examiner rating with the following additional flight examiner endorsements to those already mentioned in 1A 3.3.2(d):
2. Multi-engine class rating flight test endorsement;
3. A Night VFR rating flight test endorsement.
4. 24 months experience as an instructor with a Grade 1 training endorsement.
5. The ability to communicate effectively in writing and verbally.
6. A minimum of 1000 hours of flight instruction time.
7. A minimum of 250 hours of multi-engine flight time including 50 hours of multi-engine training experience.
8. A minimum of 250 hours experience in commercial flying operations other than flying training.
9. Approved IAW the Global FSTD 123 STOM to assess and approve [Sample Aviation] instructors so they may provide training in the device to [Sample Aviation] students.

##### Head of Operations (HOO) - Duties

The HOO is responsible for discharging the following duties:

1. Verifying that instructors, examiners and students have received the latest version of the Exposition IAW section 0.
2. Maintaining the reference library and access to publications, information and data IAW section 1A6.3.
3. Carrying out the continuous improvement process described in section 1A3.3.1 in conjunction with the CEO.
4. Actioning the change management process IAW section 0 when changes are required.
5. Reviewing compliance and facilities by:
6. conducting internal audits IAW section 0
7. reviewing audit findings and advise the CEO as required
8. taking any necessary corrective action to rectify deficiencies as soon as possible.
9. Supervising Senior Instructors to assist in identifying and correcting deficiencies IAW sections 1A8.4 and 4C1.4, in relation to:
10. training outcomes
11. pre-flight test assessments
12. feedback from examiners after flight tests
13. ensuring that instructors are supervised IAW with the procedures in section 0
14. ensuring that the instructors appointed to Senior Instructor positions are suitably qualified and have appropriate experience and skills to enable them to satisfactorily fulfil the duties of the position
15. reviewing scheduling and rostering of instructors to ensure rostering and fatigue management IAW the procedures described in section 0
16. Supervise and participating in induction and recurrency training IAW VOLUME 3.
17. In the event of an unsatisfactory Standardisation and Proficiency check of an instructor, ensure that within 14 days, email advice is provided to CASA, stating the name, position and ARN of the instructor concerned.
18. Managing the DAMP IAW appendix 9A3.
19. Ensuring up-to-date records of the qualifications of instructors and Flight Examiners are maintained using Form 9B11.
20. Liaising, as requested by the Safety Manager, to provide technical assistance in relation to the Safety Manager’s duties.
21. Liaising regularly with the Safety Manager to review the FMS and to ensure that reports in relation to Fatigue Management matters are satisfactorily resolved (refer to and use Form 9B16 and forms from VOLUME 7 – 0 [i.e. 7D1, 0 and 0] as required).
22. Maintaining Flight Examiner rating as required.
23. Liaising, as required, with the Operations Officer to provide technical assistance and direction as necessary.
24. Nominating and ensuring that Senior Instructors are trained to make recommendations for flight tests.
25. Ensuring scheduled aircraft maintenance is conducted IAW section 2C2.
26. Ensuring flight training activities are conducted in accordance with the requirements in the operator’s exposition
27. Ensure the operations manual includes sufficient information and guidance for flight instructors to manage the identified safety risks for the flight training activities.
28. Ensuring aerodromes and landing areas are suitable for the conduct of flight training activities in aircraft.

NOTE: While retaining ultimate responsibility, the HOO may delegate any of the duties listed above to suitably qualified, trained and competent personnel.

#### Safety Manager (SM)

##### Name of the SM

|  |  |
| --- | --- |
| Safety Manager | |
| Substantive SM: | [FirstName LastName] |
| Standby SM: | [FirstName LastName] |

##### SM - Mandatory experience

The Safety Manager must have the following experience:

1. Extensive knowledge of safety management principles and regulatory knowledge. Evidence of meeting this requirement would be:
2. Sufficient previous experience in safety management to be able to implement the SMS IAW this Exposition.
3. A satisfactory record in the conduct or management of air operations.

##### SM - Desirable experience

Information: Additional attributes are in excess of regulatory requirements.

In addition to the mandatory requirements listed above, the safety manager should have the following experience, capabilities and skills:

1. At least 12 months safety management experience in aviation which can include:
2. acting as a safety officer in an aviation environment or;
3. experience as a Chief Pilot, Head of Operations or Chief Flying Instructor.
4. Demonstrated ability to work in a team environment and foster a positive culture towards safety.
5. Awareness of ISO certification standards, or similar auditing experience.
6. Certificate IV in Training and Assessment or similar experience.
7. A current instructor rating with:
8. a Grade 2 (or higher) training endorsement; and
9. at least one other training endorsement that would be relevant to the company’s authorised Part 61 training activities.
10. A background to enable the understanding of:
11. auditing quality and safety systems
12. safety incident investigation
13. human factors in safety
14. workplace training and assessment.

##### Safety Manager - Duties

The SM is responsible for discharging the following duties:

1. Promoting an organisational culture that fosters safety practices through effective leadership.
2. Maintaining an appropriate reporting system to identify and manage hazards.
3. Investigating accidents and incidents and the management of corrective, remedial and preventative action.
4. Reporting to the CEO on the effectiveness of the Safety Management System.
5. Managing the implementation, maintenance and continuous improvement of the SMS, including through Form 9B17.
6. Reviewing and action as required continuous improvement suggestions recorded on Form 9B17.
7. Overseeing internal and external SMS audit programs.
8. Remain abreast of flight training safety topics.
9. Provide safety advice relevant to company operations to management and staff by circulating information through emails or printed media.
10. Providing HF&NTS training or arranging a third party to provide the training for the operator’s personnel.
11. Identifying on-going safety training requirements to support the SMS safety objectives.
12. Participation in the organisation’s periodic safety meetings (IAW the SMS).
13. Maintaining the emergency response plan.

### Exposition Administration

#### Requirement to comply with the Exposition

All key personnel, instructors and students must comply with relevant instructions and procedures contained in this Exposition.

#### Exposition distribution and availability

The Exposition is maintained in electronic format, however paper copies are provided in the Ops room for use by instructors and students. Form 9B1 is used as a register recording the Exposition’s distribution. The register is kept in the company’s administration files.

The Exposition is distributed to, or located IAW the following table:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Exposition Holder**  **or**  **Location** | **Volumes** | | | | | | | | | | **Format** | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Electronic | Paper |
| CASA | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |  |
| Reference Library | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |  | ✔ |
| CEO | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |  |
| HOO | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |  |
| SM | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |  |
| Ops Room | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Instructors | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |  |
| FSTD Room |  |  |  |  |  |  |  | ✔ |  | ✔ |  | ✔ |

#### Exposition review and amendment procedures

##### Exposition Continuous Improvement process

The CEO, the HOO and the SM must meet at least annually to review the effectiveness of the processes and procedures described in the Exposition.

In particular, they will review the adequacy of policies, processes and procedures in the Exposition and also consider the suggestions received since the last review.

If circumstances require, more frequent reviews will be undertaken to keep pace with changes in the scope of the company’s activity, civil aviation legislation and operating procedures generally.

The company welcomes suggestions from all personnel and students. Suggestions for improvement should be forwarded to the CEO, HOO or SM (as applicable) for inclusion in the company’s Continuous Improvement Register which can be found at appendix 9B18. The preferred method of submitting suggestions for continuous improvement is in writing by using company Form 9B17, however an email or other written means is also acceptable.

Any changes that result from the Exposition reviews will be made by the CEO, the HOO and the SM using the Change Management processes described in section 0.

##### Issuing of amendments

Amended versions of the Exposition will be distributed electronically to all Exposition holders as one complete new (amended) document. Notwithstanding the fact that a complete, new document will be distributed, the HOO must still provide a summary of changes contained in the amendment, including background information, details about why the changes were made and the implications for instructors and students

The HOO must ensure that when preparing the amendment, that document “change bars” are enabled so that document holders can identify the text, or sections of the Exposition that have been changed.

On receipt of the amended version, all document holders must sign Form 9B1 to indicate they have read and understood the amendments. Such forms must be retained by the Company.

In situations where an individual does not hold a copy of the Exposition, the Operations Officer must sign Form 9B1 to certify that the Exposition for that location has been updated. In the case of amendments sent to CASA, a return email acknowledging receipt will be sufficient for the Operations Officer to enter an acknowledgement on CASA’s behalf. A copy of that email must be kept with Form 9B1.

The Operations Officer is responsible for arranging for the printing and amendment of hard paper copies of the Exposition.

#### CASA exemptions

Reserved

### Record Keeping and Management

#### Control of records

Company records fall into two broad categories:

1. Operational records
2. Administrative records

#### Responsibility for records

The CEO is responsible for the management of administrative records, while the HOO is responsible for the management of operational records.

#### Retention periods for records

##### Operational records

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of record** | **Format** | | **Storage Location** | **Retention Time**  *(yr=years)*  *(mo= months)* |
| **Electronic** | **Paper** |
| Instructor & Examiner: |  |  |  |
| * Personnel induction records | ✔ | ✔ | Personnel records | 7 yr |
| * S&P checks | ✔ | ✔ | Personnel records | 7 yr |
| * IT&C records | ✔ | ✔ | Personnel records | 7 yr |
| * Instructor qualifications | ✔ | ✔ | Personnel records | 7 yr |
| * Flight Examiner records | ✔ | ✔ | Personnel record | 7 yr |
| Student administrative records | ✔ | ✔ | Ops Room | 7 yr |
| Student flight training records | ✔ | ✔ | Student files | 7 yr |
| Student flight test reports | ✔ | ✔ | Student files | 7 yr |
| Flight examiner reports | ✔ | ✔ | HOO Files | 7 yr |
| Flight authorisation sheets |  | ✔ | Operations files | 7 yr |
| Aeroplane fuel consumption records |  | ✔ | Operations files | 7 yr |
| Aeroplane maintenance records |  | ✔ | Maintenance files | 7 yr |
| Aircraft journey logs |  | ✔ | Operations files | 7 yr |
| Flight planning documentation |  | ✔ | Operations files | 6 mo |

##### Administrative records

| **Type of record** | **Format** | | **Storage Location** | **Retention Time** |
| --- | --- | --- | --- | --- |
| **Electronic** | **Paper** |
| General administrative correspondence | ✔ | ✔ | Management file | [7 yr] |
| Internal audit records |  | ✔ | Audit file | [7 yr] |
| Continuous improvement |  | ✔ | Management file | [7 yr] |
| Incident and accident reports |  | ✔ | Safety file | [7 yr] |
| DAMP records | ✔ | ✔ | DAMP file | [7 yr] |
| Personnel records | ✔ | ✔ | Management file | [7 yr] |

##### Disposal of records

The company will ensure that electronic and paper records are retained until the minimum period has passed. Should the company dispose of the records following this period, they will ensure that electronic records are permanently deleted and paper records are shredded.

##### Requests for records made by CASA

A request from CASA to surrender documents shall be handled by the CEO or by the HOO if the CEO is not available. The CEO must do the following:

1. File the request in the company administration file titled [CASA requests].
2. Action the request within the timeframe specified in the request.
3. Make a copy of the response and CASA receipt and attach it to the same file.
4. Liaise with the HOO and SM for provision of any operational or safety related documentation.

### Facilities and Resources

INFORMATION:

The information in this part applies to a fictitious organisation, (Sample Aviation). While the context may be mandatory, the detail is not and as such is simply provided as an example. Operators using this document should consider their own circumstances and modify this section as appropriate.

The following facilities and resources are available to be used by [Sample Aviation].

#### Description of building infrastructure

The School’s facilities consist of three fully air-conditioned de-mountable buildings.

There are sufficient computers available in all buildings to enable procurement of operational information and flight planning. Each computer (except those used by students) is installed with contemporary software applications that are used for:

* Managing the day-to-day operations of the business
* Recording flight training operations
* Managing rosters and flight and duty times
* Running & presenting learning software for use by students
* The procurement of operational information and flight planning purposes.

The third building is primarily used for theory delivery associated with integrated CPL training and meets the requirements for the conduct of examinations.

The computers are all connected to the internet and print services via the network.

Building 1

This building is used for company administration and the management of flight operations. The building contains:

* CEO’s office
* HOO’s office
* SM's office
* Office front counter, Operations Officer desk
* Locked filing cabinet for exam results and student flight training records
* An operations room where flight planning and flight plans are submitted. This room has the following equipment:
* large desks used to prepare flight plans
* three computers with internet access to NAIPS and access to operational information
* book shelf for student log books
* notice board for weather, relevant company notices and other documents of importance
* topographical map of the training area, planning chart Australia (PCA) and the relevant Visual Navigation Chart/s (VNC)
* safety and aviation relevant posters
* maps of a suitable scale displaying company approved navigation training routes
* large bookcase for the company’s reference library
* kitchen
* instructor cubicles

Building 2

This building is used for conducting ground theory training, briefing and examination activities. The building contains:

* Two classrooms; each accommodating up to eight students, equipped for the delivery of theory training and briefings including:
* desks
* large whiteboard
* multimedia equipment
* instructional aids, including aeroplane model and cockpit posters
* student self-study area

Building 3

This building is used for conducting training, briefing and examination activities for integrated CPL training. The building contains:

* Five pre-flight briefing cubicles, each fitted with:
* a small whiteboard
* instructional aids, including:
* a cockpit poster
* an aeroplane model
* cockpit “attitude” cut-outs; and
* a networked computer for delivery or briefings, updating of company information systems and retrieval of operational information
* One classroom accommodating up to twelve students equipped for the delivery of ground theory training including:
* desks
* large whiteboard
* multimedia equipment
* instructional aids, including aeroplane model and cockpit posters

#### Aircraft resources and management

To support the Part 141 and Part 142 training activities conducted by the company, [Sample Aviation] operates a fleet of single and multi-engine piston powered aeroplanes.

Due to variations in the level of training activities and other factors influencing demand for aircraft, the number of aircraft operated by the company can be changed at relatively short notice.

Form 9B13 (Details of Registered Aeroplanes & FSTDs) is used to keep track of the aircraft that are currently being operated by the company or have previously been operated.

This register is to be updated as required when aircraft are added to, or removed from the company’s fleet.

##### Addition of new kinds of aircraft to the fleet

The introduction of additional kinds of aeroplanes to the fleet is to be conducted IAW the change management process in section 0.

#### Flight Simulator Training Devices (FSTD)

##### FSTD Description

[Sample Aviation] operates a Global 123 FSTD certified under CAO 45. The device is a PC-based two seat trainer with flat panel LCD screens for the display of external visual scenes, aircraft instrumentation and instructor control station information. The device is capable of simulating both single and multi-engine piston powered aeroplanes.

##### Synthetic Trainer Operations Manual (STOM)

The STOM associated with the FSTD forms a part of the Exposition (VOLUME 8) and a copy is kept adjacent to instructor console in the FSTD training area.

##### FSTD Approval and Training Credits

The device is approved by CASA as a Category B trainer under CAO 45.0 and IAW with CASA Document FSD2, to accrue aeronautical experience for the purposes of instrument ground time. Instrument training credits are available for the following types of training:

* RPL, PPL, CPL for both CASR Part 141 and 142 training
* Night VFR training.

The hours and lesson content are contained within the syllabuses found in VOLUME 10.

##### FSTD Fidelity Checks

All FSTDs require fidelity checks to be conducted by CASA on a regular basis. The fidelity checks are at least conducted on an annual basis, no later than 12 months from the date of previous check.

After conducting a successful fidelity check, CASA will issue a new approval for the device. The HOO will arrange to place a copy of the approval into the Exposition (at appendix 9A2) and replace the framed copy located adjacent to the trainer.

The HOO will also ensure a copy of the most recent CASA Form 248, used to record the result of the Synthetic Trainer Fidelity Check, is also kept in the back of the STOM.

##### FSTD Serviceability

Should any company instructor or examiner find that there is a deficiency with the trainer at any time; details of the deficiency are to be entered into the device’s STOM maintenance release.

This document is to be then photocopied by the instructor making a note of the defect. They are then to provide copies to the HOO for initiation of repair action and also to the Operations Officer for day of operations booking management.

Once repaired, the HOO will arrange for release of the device back into service by making the appropriate endorsement on the STOM MR and advising the Operations Officer.

##### FSTD Software Updates

Should any software update, modification to the device, change of location or amendment to the STOM take place, the HOO will ensure instructional staff are notified and that CASA is notified so that revalidation of the device can take place before it is returned to service.

#### Care and maintenance of facilities

All training facilities and resources must be kept clean, tidy and in good repair. Any instructor using a company resource or facility is responsible for ensuring that it is left in a clean and tidy condition and ready for use by the next instructor, or secured as appropriate, if no further training activities are scheduled for that day.

Defects, faults or unserviceabilities with company facilities or resources must be reported using the appropriate means, to both the HOO and Operations Officer as soon as possible. In the absence of any suitable forms for reporting defects, an email to the appropriate person, outlining the defect, fault or unserviceability, is considered a suitable means of making a report.

Should the reporter consider that the matter may have or has an impact on safety, it must also be reported to the Safety Manager.

#### Review of facilities

Regular audits of the facilities and resources are to be conducted by the HOO to ensure that all the training facilities and resources continue to be adequate (refer to the company’s internal audit process in section 0).

If a need for additional resources or funding is identified, the CEO must be notified immediately by email from the either HOO or Safety Manager, as appropriate, with this request.

Company Form 9B2 shall be used for the conducting the audit and reporting the results.

#### Aerodromes and landing areas

Where flying training activities are required to be conducted at any aerodrome or landing area or site, the following matters must be considered:

1. Exposition change management procedures, if conducting flight training at a new location,
2. Instructor familiarity with the:
3. aerodrome;
4. local operating procedures including location of associated training areas; and
5. risks associated with operating at that aerodrome.
6. Aerodrome suitability for the task, including:
7. other users of the aerodrome;
8. physical dimensions and characteristics, in respect to the types of aircraft proposed to be operated and safety margins for certain solo flights;
9. preference for the use of registered or certified aerodromes;
10. if an ALA is to be used, the advice in paragraphs 4B6.7 and 4B6.8 must be considered, in addition to the other considerations listed in this section;
11. operation of aerodrome lighting and procedures in the event of lighting failure
12. The availability of suitable facilities and services such as:
13. flight planning, briefing and crew rest and refreshment areas
14. fuel
15. aircraft parking areas
16. aircraft maintenance services.
17. NOTAM and weather services
18. communication ability with operational headquarters and other relevant agencies such as:

* Fire services
* Ambulance
* Police
* Aerodrome owner
* Airservices Australia.

### Company Reference Library

#### Composition of reference library

The company reference library includes the following documents:

|  |  |  |
| --- | --- | --- |
| Document Name | Type of document | |
| Electronic | Paper |
| [Sample Aviation] Part 141 Operations Manual and Part 142 Exposition | ✔ | ✔ |
| *CAA 1988* | ✔ |  |
| *CASR 1998* – complete | ✔ |  |
| *CASR Part 61 Manual of Standards* | ✔ | ✔ |
| *CAR 1988* - complete | ✔ |  |
| *CAOs* | ✔ |  |
| AIP |  | ✔ |
| ERSA |  | ✔ |
| *CAAPs* and *ACs* of relevance |  | ✔ |
| AFMs or POHs – copies for each aeroplane operated |  | ✔ |
| Register of ALAs approved for use by company aeroplanes | ✔ | ✔ |
| Training area map [*ops room wall*] | ✔ | ✔ |

#### Access to reference library

All instructors and students must have access to publications maintained in the reference library when the school is open.

With the exception of the Exposition, the library is for reference purposes only and no publications may be removed from the company’s premises. However, relevant sections including AFMs, POHs, load sheets and regulations, may be copied or printed as required.

Once printed, all documents will be considered as *uncontrolled documents*.

#### Amendment and maintenance of reference library

The HOO will review the amendment status of each item in the reference library in accordance with that documents’ amendment cycle and update it as required.

#### Synthetic Trainer Operations Manual (the STOM)

In addition to be being part of the [Sample Aviation] Exposition, a copy of the STOM must also be kept with the Global 123 FSTD at all times.

### Change Management

All changes to company operations, policies or procedures are made under the direction of the CEO IAW this section.

#### Change management process

The following process workflow illustrates the change process:



#### Actioning the change management process

When actioning a proposed change the CEO, in consultation with the HOO, must follow the change management process flow in section 1A7.1 using the methodology outlined below.

* Verify the need for change with reference to the following change instigators:
* new regulatory requirements
* non-compliance notices (CASA)
* audit observations (CASA)
* CASA directions IAW *CASR 141.100* and *142.155*
* continuous improvement process
* new business opportunities or new or different kinds of aircraft
* internal audit results
* change of key personnel.
* Assess the risks of the proposed change considering at least, but not limited to:
* resource requirements
* financial capability of the company
* compliance considerations
* urgency of change
* implementation implications and strategy
* impact on safety.
* The HOO will draft an Exposition amendment with details of the proposed change
* The CEO will refer to *CASR 141.025* and *CASR 142.030* to determine if the change is significant or non- significant
* if the change is significant, proceed IAW section 1A7.3
* if the change is not significant, proceed IAW section 1A7.5.

#### Process for seeking CASA approval of a significant change

A significant change requires CASA approval. The CEO, in consultation with the HOO, will prepare and dispatch a written application to CASA for approval of the change including details of the change and a draft copy of the amended Exposition. The HOO will deal with CASA in relation to the approval process for the amended Exposition.

When the change is approved, action the change IAW section 1A7.5.

#### Change of key personnel

Changes of key personnel are defined as a significant change. After the company appoints the new key person the CEO will send an application to CASA for approval:

* Within 7 days of the new appointment if the new appointee is named in the Exposition as a standby person previously approved by CASA; and
* Within 3 days of the new appointment if the new appointee is not named in the Exposition as the standby person

Where the change of key personnel is for someone new to be appointed to the position of CEO, the directors of the company or a person nominated by them shall make the application to CASA on behalf of the Company.

Once approved, an amended Exposition must be issued showing the new key person appointment, including conditions imposed by CASA (if any).

An electronic copy of the Exposition must be distributed to instructors IAW section 1A3.2 and 1A3.3.2.

#### Process for implementing change

The process for implementing a significant or non-significant change is:

1. If required, obtain CASA approval for the change
2. The HOO will issue the amended Exposition IAW section 1A3.3.2
3. The HOO will review the operation of the change within 3 months of the change taking effect to assess its ongoing effectiveness and suitability.
4. To determine the long term implications of any changes, the HOO will action the continuous improvement process IAW section 1A7.

#### Changes of name, contact details and addresses

Before any change is made, the CEO will notify CASA in writing of the changes. This notification will include a copy of the proposed amendment to the Exposition with changes highlighted.

After CASA has been notified, the relevant amendment to the Exposition may be effected by the CEO and a new version of the Exposition distributed IAW section 1A3.2.

### Internal Audit Processes

#### Exposition compliance

At least annually and more frequently when required, the HOO will carry out a compliance audit using Form 9B2 on a representative sample of processes and procedures against the requirements in the Exposition.

NOTE: ‘*Representative sample*’ means the HOO is to consider where an emphasis is to be placed. A program dealing largely with CPL training would require a larger sample, although this does not mean to the exclusion of a smaller sample of minimal night VFR training activities.

#### Audit sampling process

To facilitate the audit the HOO will select for review a representative and random portion of company records from the various aspects of company operations. The HOO may also utilise company reports, minutes of meetings and physical inspections of items such as aircraft or other infrastructure to assist in the audit.

Meetings and or discussions with company staff (including other key personnel), Flight Examiners and students may also assist in developing an overall picture of compliance performance.

Company Forms 9B2 and 9B3 can be used for the auditing process and examples of the records and matters to be audited, although by no means exhaustive, are:

1. Records (Form 9B2 part 1) – confirm that:
2. Verification that fuel records are being kept up-to-date, accurate and that the published fuel consumption rates are being achieved.
3. Aircraft journey logs records are accurate and complete and cross-checked for accuracy and completeness with flight authorisations.
4. Verification that the MRs and other maintenance records are accurate and being kept up-to-date.
5. Company flight authorisation records are accurate and complete and cross-checked for accuracy and completeness with journey logs.
6. Confirm that the DAMP is being administered correctly.
7. Form 9B1 (Exposition distribution & acknowledgement record) is up-to-date and accurate for the current version of the Exposition.
8. Instructor records are up-to-date, accurate and in a tidy condition
9. The IT&C system is being managed appropriately and that records are up-to-date and accurate.
10. SMS (Form 9B2 part 2) – confirm that:
11. SPI Targets are being met.
12. Hazard and Incident reports are being submitted, actioned appropriately and followed-up with feedback given to originators and outcomes promulgated across the company.
13. Action items on Form 9B17 (Suggestion for Continuous Improvement) have been resolved and that corrective actions have occurred.
14. The SM continues to have independence.
15. Resourcing and Structure & Personnel (Form 9B2 part 3) – confirm that:
16. The management structure of the company continues to be effective.
17. The organisational structure of the company and reporting protocols continues to be effective.
18. The financing of the company continues to be appropriate and sufficient for future needs.
19. The company’s infrastructure is appropriate, is in good repair and regular maintenance is occurring.
20. The number of operational staff and range of qualifications amongst the staff was appropriate for the activities conducted and these staff will be able to continue to deliver flight training for the projected student numbers.
21. The type and number of aircraft being operated by the company continues to be appropriate, that they are being effectively maintained and the level of equipment is adequate for the training being conducted.
22. With reference to Forms 9B2 (part 4), 9B3 and 9B11, confirm that all instructors and examiners have only conducted training that they are authorised under Part 61 to conduct and that they have successfully completed the training set out in VOLUME 3 of this Exposition.
23. TMS (Form 9B2 part 4 and Form 9B3) – confirm that:
24. Examinations are up-to-date, relevant, secure and sufficient for the types and amount of training taking place.
25. Student flight training records are up-to-date, accurate, meaningful instructor comments have been made, training difficulties identified and handled appropriately (use company Form 9B3 for this part of the audit).
26. Student logbooks have been cross-checked with training records and instructor records for accuracy and are up-to-date with appropriate entries and certifications completed.
27. The scheduling of training continues to be effective and in particular student solo flights are authorised and managed correctly.
28. Fatigue Management System (Form 9B2 part 5) – confirm that:
29. Fatigue reports are been submitted when required and followed up appropriately.
30. Extensions have been investigated.
31. Appropriate risk management protocols are in place and being managed effectively.
32. Compliance – the flight and duty records that operational personnel are required to keep are, up-to-date, accurate and being managed effectively.
33. Rosters are being prepared and managed IAW published fatigue management processes.
34. Facilities and Personnel (Form 9B2 part 6) – confirm that:
35. The building infrastructure is adequate, appropriately equipped, in good repair and defects, when identified are rectified in a timely manner.
36. The training aids and other physical resources available to staff and students are adequate, in good repair, of continued benefit and will be sufficient to enable the delivery of flight training to future courses.
37. The kitchen, administration areas and operations room continue to function well and that they continue to meet the needs of the school and are in good repair.
38. The presence of sufficient suitable aeroplanes has and will be available for the delivery of flight training.
39. Company IT systems are running appropriate and up-to-date software necessary to manage the date-to-day operation of the school, the computer hardware is up to the task of running the company software applications, the internet and company intranet access is reliable with a high level of availability and consumables are readily available being replenished regularly and when required.

#### Management of audit outcomes

The CEO is to be advised of all audit results. This is accomplished by the HOO forwarding Forms 9B2 and 9B3 on completion of the audits, for input and sign-off by the CEO.

If, as a result of any of these audits, the HOO identifies any non-conformances for any part of the company’s operations, the HOO is to specifically highlight these issues. These non-conformances will subsequently become the subject of further discussion at management level, which will examine the root causes and ways of preventing future occurrences.

#### Monitoring standards of training

On a quarterly basis, the HOO will:

1. Compare average student hours at the completion of each licence level between the current period and previous periods.
2. Monitor training by conducting training flights with a representative sample of students in various stages of training to assess their actual performance against expected performance.
3. Review flight training records and course syllabuses to identify any patterns of training deficiencies in accordance with section 4B4.1.
4. Review pre-flight test assessments and examiners’ flight test reports for evidence of training deficiencies. This will include an assessment of the average waiting time from completion of training to the student undertaking the flight test.
5. Review student progress for students trained exclusively by Instructors holding a Grade 3 training endorsement, or after 15 flight training hours have been completed by an instructor with a Grade 3 Training Endorsement.
6. The HOO will regularly report to the CEO confirming that the standards of training are being maintained, and that corrective action (if required) is being taken.

#### Audit Schedule

The table below represents the company’s planned audit schedule over a 12 monthly period.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Audit** | | **Action by** | **Form** | **Frequency\*\*** | | | | | **Comments** |
| **1** | **3** | **6** | **12** | **End** |
| **1** | **Records** | HOO | 9B2 |  | ✔ |  |  |  |  |
| **2** | **SMS** | SM | 9B2 |  |  | ✔ |  |  |  |
| **3** | **Resourcing & Structure** | CEO | 9B2 |  |  |  | ✔ |  |  |
| **4** | **TMS** | HOO | 9B2 |  |  | ✔ |  |  |  |
| **5** | **Fatigue System** | SM | 9B2 |  | ✔ |  |  |  |  |
| **6** | **Facilities and personnel** | CEO | 9B2 |  | ✔ |  |  |  |  |
| **7** | **Training Records** | HOO | 9B3 | ✔ |  |  |  |  | A representative sample |
| **8** | **Conduct of Part 142 training** | KP^^ |  |  |  |  |  | ✔ | At the conclusion of each course |

***\*\* The frequency of audit refers to months, or at the end of a course or major training activity***

***^^ Key Personnel***

## Operational Personnel

### Operational Personnel employed by the company

To safely and efficiently manage the activities conducted by the company, in addition to the mandatory key personnel positions, the following operational roles and designations exist within the company:

* Pilot-in-Command
* Flight Instructor
* Senior Instructor Part 141 training
* Senior Instructor Part 142 training
* Flight Examiner
* Supervising instructor
* Ground Instructor
* Operations Officer

### Roles and Responsibilities of Operational Personnel

#### Pilot-in-command (PIC)

##### Designation of PIC

Notwithstanding the actual role an employee has within the company, for all flights in aeroplanes, one pilot shall act as pilot-in-command (PIC) IAW the following principles:

1. In the case of dual training flights, the flight instructor will act as the PIC, while for solo training flights the student will act as PIC
2. In the case of a flight test, the Flight Examiner will be the PIC IAW the Flight Examiner Handbook (FEH) requirements.
3. In the case of IT&C, the company training and checking Pilot (the ***Checker***) will act as the PIC.

##### PIC responsibilities

The following responsibilities apply when operating company aircraft in accordance with this Exposition as the PIC of an aircraft engaged in authorised company flying training activities:

1. In addition to being responsible for the operation and safety of the aircraft throughout the flight, the PIC shall be responsible for the safety of all persons on-board and for the conduct and safety of those persons

#### Flight Instructors

##### Flight instructor responsibilities and duties

All Flight instructors are responsible for:

1. The safe and efficient conduct of their allocated student’s dual and solo flying training and the updating the associated flight training records.
2. The checking of flight times against aeroplane records and if necessary, directing the correction of the pilot log books of their allocated students.
3. Ensuring that daily inspections are properly carried and certifications are entered into the maintenance releases.
4. Ensuring that aeroplane flight times are correctly entered into the maintenance releases at the completion of each days flying.
5. The accurate completion of their company flight and duty time records (Form 9B12).
6. Ensuring that training is conducted IAW this Exposition.
7. Liaise with Senior Instructors to coordinate remedial training of underperforming students.
8. Maintaining their pilot and instructor qualifications under Part 61 and advising their supervising Senior Instructor (or in his or her absence, the HOO), if they cease to be authorised to deliver the training they are employed to do.

##### Part 142 Flight Training - Mandatory qualifications

Instructors conducting authorised Part 142 flight training must, as a minimum hold each of the following qualifications:

1. A valid Class 1 Medical Certificate issued by CASA
2. A CASA issued Commercial pilot licence [CPL(A)] with aeroplane category rating and the following additional Part 61 qualifications:
3. Flight instructor rating with the following training endorsements:

* Grade 3 training endorsement (aeroplane);
* NVFR training endorsement; and
* Design feature (DF) training endorsement.

1. The following design feature endorsements:

* Retractable undercarriage (RU); and
* Manual propeller pitch control (MPPC).

1. A night VFR rating with a single-engine aeroplane night VFR endorsement.

##### Part 141 Flight Training - Mandatory qualifications

Instructors conducting Part 141 flight training must, as a minimum hold the following training authorisation:

1. A valid Class 1 Medical Certificate issued by CASA.
2. A CASA issued Commercial pilot licence [CPL(A)] with aeroplane category rating and the following additional Part 61 qualifications:
3. Flight instructor rating with a Grade 3 training endorsement (aeroplane).

##### Flight instructors authorised to approve and supervise solo flights

The HOO will maintain a register, using the form at appendix 9B11, of instructors and their Part 61 training endorsements and the training they are authorised to conduct by the company. This form also includes a notation that the instructor is authorised to send students on the first solo flight.

1. For the purposes of authorising a first solo flight in the circuit, the training area or for a cross country navigation exercise, by day or night, the company specifically permits only:
2. Holders of a Grade 1 or Grade 2 training endorsement and any other required training endorsements (such as Night VFR), to authorise such a flight.
3. For the purposes of authorising a solo flight in the circuit or the training area or for a cross-country navigation exercise, by day or night, other than a first solo, the company permits:
4. Holders of a Grade 1 or Grade 2 training endorsement and any other required training endorsements (such as Night VFR); and
5. Holders of a Grade 3 training endorsement:
6. with more than [nnn] hours of flight instructor experience; and
7. any other required training endorsements (such as Night VFR); and
8. who also holds the express written permission of the HOO to approve such flights.

NOTE: The responsibilities and duties of a flight instructor authorised to approve and supervise solo flights are listed under section 4B6.2.

#### Senior Instructors

[Sample Aviation] retains two Senior Flight Instructors (the ***Senior Instructors***) to oversee Part 141 and Part 142 training operations. These positions report to the HOO.

##### Senior Instructor Part 141 training - responsibilities and duties

In addition to their responsibilities as a flight instructor (1B2.2.1), the Senior Instructor Part 141 training is responsible for:

1. Making certifications a person meets eligibility requirements IAW regulation *61.235* for Part 141 flight tests.
2. Assessing and approving instructors IAW the Global 123 FSTD STOM for providing training on the device.
3. Supervising instructors conducting Part 141 flight training IAW with the procedures in section 0.
4. Maintaining, as a delegate of the HOO, up-to-date records of the qualifications of Part 141 instructors using Form 9B11.
5. Regularly reviewing the recent flight training records of students IAW 4B4.1.
6. Liaising with instructors so that underperforming students are provided with enhanced training management and make comments as appropriate in the student’s training record.
7. When assigned by the HOO, perform IT&C duties (IAW VOLUME 3).

##### Senior Instructor Part 142 training - responsibilities and duties

In addition to their responsibilities as a flight instructor (1B2.2.1), the Senior Instructor Part 142 training is responsible for:

1. Making certifications a person meets eligibility requirements IAW regulation *61.235* for Part 142 flight tests.
2. Assessing and approving instructors IAW the Global 123 FSTD STOM for providing training on the device (refer Form 9B4).
3. Supervising instructors conducting Part 142 activities IAW with the procedures in section 1B2.5.
4. Maintaining up-to-date records of the qualifications of Part 142 instructors using Form 9B11.
5. Regularly reviewing the recent flight training records of students IAW 4B4.1.
6. Liaising with instructors so that underperforming students are provided with enhanced training management and make comments as appropriate in the student’s training record.
7. When assigned by the HOO, perform IT&C duties (IAW VOLUME 3).

##### Senior Instructors - Mandatory qualifications

As Senior Instructors perform IT&C duties, they are to hold an instructor rating with the following mandatory qualifications in addition to any other qualifications they would be required to hold as a flying instructor:

1. A valid Class 1 Medical Certificate issued by CASA.
2. A CASA issued Commercial pilot licence [CPL(A)] with aeroplane category rating and the following additional Part 61 qualifications:
3. A flight instructor rating with the following training endorsements:

* Grade 1 training endorsement (aeroplane)
* Multi-Engine Class Rating training endorsement
* Night VFR Rating training endorsement
* Spinning training endorsement.

1. [250] hours experience as a flight instructor while holding a Grade 1 training endorsement.
2. [12] months experience as an instructor at [Sample Aviation].
3. Approved IAW the Global 123 FSTD STOM to assess and approve [Sample Aviation] instructors so that they can provide training in the device to [Sample Aviation] students.
4. [50] hours experience in multi-engine training operations.

##### Senior Instructors - Desirable qualifications

1. Training and checking, Chief Pilot, or HOO/CFI experience.

#### Flight Examiners

##### Flight Examiners - responsibilities and duties

In addition to the responsibilities and duties of a flight instructor, [Sample Aviation] requires the Flight Examiner to also perform the following duties:

1. Conduct flight tests on behalf of the company for students that have been trained by [Sample Aviation]
2. Liaise with the Part 141 and 142 Senior Instructors and the Operations Officer in relation to the student testing program
3. Provide feedback and advice in relation to test standards to the HOO
4. Ensure their Flight Examiner Rating remains current and advise the HOO of any flight review conducted so that the record held on Form 9B11 can be updated.

##### Flight Examiners - Mandatory qualifications

Flight examiners are appointed by the company and when not performing examiner duties, they may also perform flight instruction and Senior Instructor activities. On this basis the minimum qualifications for appointment as a Flight Examiner are:

1. A valid Class 1 Medical Certificate issued by CASA.
2. A CASA issued Commercial pilot licence [CPL(A)] with aeroplane category rating and the following additional Part 61 qualifications:
3. A flight instructor rating with the following training endorsements:

* Grade 1 training endorsement
* Multi-Engine Class Rating training endorsement
* Night VFR Rating training endorsement
* Spinning training endorsement.

1. A flight examiner rating with the following flight test endorsements:

* Private pilot licence flight test endorsement
* Commercial pilot licence flight test endorsement
* Night VFR rating flight test endorsement
* Multi-engine aeroplane flight test endorsement.

##### Flight Examiners - Desirable qualifications

1. Training and checking, Chief Pilot, or HOO/CFI experience.

#### Supervising Instructors

##### The role of the Supervising Instructors

The supervising instructor role is a rostered position and exists simply to carry out supervision of the day’s training activities and of junior instructors who hold a Grade 3 training endorsement.

For this purpose, the instructor fulfilling this role will be known as the ***supervising instructor*** for that day’s roster.

Specifically, the role of the supervising instructor is to:

* Supervise junior instructors holding a Grade 3 training endorsement;
* To manage flying training operations generally; and
* To supervise night flying training operations when they are conducted.

NOTE: If an instructor is to be rostered as a supervising instructor for night flying operations, in addition to holding a Grade 1 training endorsement, they must also hold a NVFR training endorsement and have accrued at least [xx] hours of night flying training experience.

##### Personnel who can be rostered as a Supervising Instructor

Any of the following company personnel can be rostered to the Supervising Instructor position on a particular day:

1. The HOO
2. Either of the Senior Instructors
3. Any company flying instructor who holds the following training endorsements as a minimum:
4. A Grade 1 training endorsement; and
5. A Night VFR rating training endorsement or Instrument rating training endorsement.

##### Supervising instructor - responsibilities and duties

The responsibilities and duties of a supervising instructor include:

1. The supervision of flight instructors who only hold a Grade 3 training endorsement.
2. Grade 3 supervision means that the supervising instructor will, at sign on, review the day’s activities with the Grade 3 or junior instructor to ensure the following issues are understood by the Grade 3 instructor such as:

* weather
* aircraft serviceability
* end of daylight
* suitable break times.

1. With regard to training conducted by Grade 3 instructors, the supervising instructor will:
2. where possible, observe briefings and lesson conduct, student interactions and record keeping and compliance with civil aviation legislation
3. at the end of the day, supervise a Grade 3 instructor’s record keeping.
4. With regard to flying School operations generally:
5. Consider the latest information relevant to the training area, NAVEX routes and any intended landing points for company aircraft. Where available, the information to be considered includes:

* area forecasts
* Terminal Aerodrome Forecasts (TAFs) and METARs
* NOTAMs.

1. Review the day’s activities as programmed, together with instructors so that any anticipated risks such as weather considerations, remedial training activities, or aircraft issues are fully understood by all.
2. Actions in the event of aerodrome lighting failure when conducting night flight training operations
3. To enable changes that are necessary on the day of operations, the supervising instructor will liaise with the Operations Officer and Safety Manager to provide cooperation as necessary for the day’s activities.

##### Company policy for supervision of Grade 3 Instructors

To effectively supervise an instructor holding a Grade 3 training endorsement, the supervising instructor must:

1. Be at the company’s main base of operations or contactable by electronic means if away from the main base for short periods of time.
2. Be flying within the aerodrome circuit area, training area or on a NAVEX and contactable by radio or other electronic means.
3. Be available to provide advice and guidance to the Grade 3 instructor.

#### Ground Instructor

##### Ground Instructor - responsibilities

The responsibilities of the Ground Instructor are:

1. Develop and manage the delivery of ground training programs IAW VOLUME 10.
2. Monitor the effectiveness of the ground training program through the review of training outcomes.
3. Ensure course materials align with current MOS requirements by:
4. Reviewing and implementing syllabus changes according to CPL integrated training needs and changes to the Part 61 MOS.
5. Updating course material when necessary.
6. Updating examinations with regard to changes in the training syllabus.
7. Maintain teaching resources including classrooms, publications and learning materials.
8. Report on the following matters to the HOO and record in the student ground training records:
9. Student attendance information
10. Examination and KDR results.
11. Liaise with the HOO regarding the training program delivery.
12. When required, develop remedial training programs for individual students.
13. Liaise with the Operations Officer to schedule course delivery.
14. Coordinate examinations for students (CASA examinations).

#### Operations Officer

##### Operations Officer - responsibilities

The responsibilities of the Operations Officer are:

1. Under the general guidance of the HOO and Senior Instructors, roster instructors IAW the procedures described in VOLUME 7.
2. Allocate suitable aircraft and FSTD resources IAW program requirements.
3. Program scheduled aircraft maintenance in conducted IAW section 2C2 of this Exposition.
4. Arrange day of operation program changes.
5. Under general guidance of the HOO ensure resources are available for integrated CPL flight training program delivery.
6. Determine suitability of aerodromes for allocated aircraft.

### Rostering and Fatigue Management

Refer to VOLUME 7 of this document - FATIGUE MANAGEMENT MANUAL.

### Medical certification of flight crew

#### Policy - Medical Certificates

##### Medical Certificates - Operational Staff

The following procedures apply for each flight instructor conducting authorised Part 141 or Part 142 Flight Training:

1. Company instructors must hold a current CASA issued Class 1 Medical Certificate.
2. At the first available opportunity after their Class 1 Medical Certificate is revalidated by a DAME:
3. A flight instructor must give a copy of the revalidated medical certificate to the HOO; and
4. The HOO will then update the company register of instructor qualifications using Form 9B11.
5. At the first available opportunity after receiving their Medical Certificate from CASA:
6. A flight instructor must give a copy of the new Medical Certificate to the HOO; and
7. The HOO will then update the company register of instructor qualifications using Form 9B11.
8. The HOO must keep a copy of the instructor’s medical certificate in the instructor’s personal file.

##### Medical Certificates - Students

The following procedures apply for all students about to commence or undergoing flight training at [Sample Aviation]:

1. All students must have a valid CASA issued Class 1 Medical Certificate prior to commencing training. A copy of this certificate must accompany any application for enrolment at [Sample Aviation].
2. At the first available opportunity after their Class 1 Medical Certificate is revalidated by a DAME, students must give a copy of the revalidated medical certificate to their instructor who will file this in their personal file, including the updating of any records; and
3. At the first available opportunity after receiving their new Medical Certificate from CASA, students must give a copy of the new Medical Certificate to their instructor who will file this in their personal file and update any records.

#### Management of alcohol and other drugs

[Sample Aviation] has prepared its own Drug and Alcohol Management Program (DAMP), which can be found at Appendices 9A3.

It is a condition of employment that all safety sensitive staff employed by [Sample Aviation] complies with all the provisions of the Company DAMP.

## Safety Policy

### Safety Policy - Overview

#### Safety policy statement

Safety is the first priority of [Sample Aviation] in all its activities. The Company is committed to developing and implementing strategies to ensure all of our aviation activities uphold the highest level of safety performance. It also strives to provide safe and secure work conditions and to foster positive safety attitudes.

The Directors, the CEO and management are committed to developing a safety culture in all our activities resulting in an accident free workplace.

[Sample Aviation] seeks to develop a culture of open reporting of all safety hazards and support effective communication throughout the organisation.

To help [Sample Aviation] continuously improve its safety performance all instructors and students are encouraged to report directly to the CEO or HOO, in accordance with the company SMS, each event or factor they think could affect safety.

The company’s policy is to apply just culture principles to any report which identifies a newly identified safety issue accurately and will deal with the issue in a timely manner.

#### Safety Management

NOTE: A CASR Part 142 operator must develop their own Safety Management System (SMS). Guidance material is available from the published CASA SMS Toolkit. The SMS would be contained within Volume 5 of the Exposition.

[Sample Aviation]’s commitment is to develop and embed a safety culture in all its activities, acknowledging that safety is paramount. This will be done through:

* All staff and students undergoing familiarisation training IAW [Sample Aviation]’s SMS.
* Encouraging and maintaining a healthy safety culture within the organisation.
* Fostering a just and fair, but accountable reporting culture.
* Promoting an environment of trust based on a clear understanding of acceptable and unacceptable behaviour.

Acceptable behaviour; includes honest errors such as unintentional slips and lapses.

Unacceptable behaviour; includes negligent conduct, reckless conduct and intentional wilful unsafe acts and violations.

* Actively encouraging the use of the various reporting tools contained within the SMS.
* Encouraging direct safety related feedback to Safety Manager, CEO or HOO.
* Clearly defining for all staff and students their responsibility for achieving safety outcomes.
* Minimising the risks associated with the operation of aeroplanes to a point that is as low as reasonably practicable.
* Striving to continually improve safety performance.
* Conducting regular management reviews to ensure that relevant action for improvement is taken.
* Providing safety margins for all flight training activities.

### Company SMS Implementation Plan

The company has decided to include all company operations within its SMS.

Further information about the management of the company’s SMS implementation plan can be found in VOLUME 5, which functions as the company’s SMS Manual.

## Dangerous Goods

Refer to VOLUME 6 for the company’s Dangerous Goods statement.

# OPERATIONAL PROCEDURES

## General

#### Documents to be carried on flights

The following documents and manuals must be carried on all training flights:

1. A valid aeroplane maintenance release.
2. The flight crew licences and Medical Certificates for all crew.
3. The applicable aircraft flight manual (AFM) and supplements (if applicable).
4. [Sample Aviation] aeroplane checklists (normal and emergency) – see appendix PART 9C - Aeroplane Checklists.
5. The aircraft journey log (refer Form 9B20).
6. A map, or maps appropriate to the area of operation.
7. Other operational documents such as the ERSA.

*Additionally, instructors must ensure that for any navigation exercise, the following documents are* *also carried on board the aircraft:*

1. Weather forecasts and NOTAMs for the route being flown and the intended landing places.
2. Aeronautical information publication (AIP) documentation.
3. A completed weight and balance (W&B) calculation.
4. Information sheets for any ALAs that they intend to operate into.

#### Aircraft Flight Manual (AFM) and use of checklists

##### Aircraft operation to be IAW AFM and checklists

The aircraft flight manual (AFM) is integral to the operation of the airworthiness of an aeroplane, and contains information and instructions required to operate the aeroplane safely. With respect to the AFM, the HOO must ensure that for each aircraft operated by the company that:

* The HOO must ensure each aeroplane operated has a current AFM; and
* The AFM is the correct document for the kind of aircraft being operated. This can be confirmed by reference to the aircraft serial number and the corresponding AFM part number, details of which can be found in appendix 9B13.

Aeroplanes are to be operated IAW the [Sample Aviation] aeroplane checklists covering normal and emergency operations that are derived from the manufacturer’s documentation. Pilots are to be aware that the level of detail in the checklists may be less than the AFM and are required to be aware of this additional detail in the AFM.

#### Carriage of CASA officers

Authorised CASA officers may be carried in company aeroplanes for the purposes of checking company instructors or observation of flight tasks. All such flights require the authorisation of the HOO.

It is the policy of [Sample Aviation] that a company pilot must always be the nominated PIC unless the CASA authorised officer is conducting a proficiency check or rating issue on company personnel.

#### Manipulation of propeller – hand starting of engines

Warning: The propeller should always be treated as ‘live’.

[Sample Aviation] has a policy of not permitting staff or students to manipulate propellers for the purpose of hand starting an aeroplane engine.

Furthermore, any other handling of a propeller should be kept to an absolute minimum.

#### Taxiing of company aircraft

Persons authorised to taxi aeroplanes operated by [Sample Aviation] include:

* Student pilots who are being sent for their first solo flight and for subsequent solo flights and have been authorised by their instructor and Form 9B10 (Section 5 Part B), has been signed off.
* Pilots who hold a class rating for that aeroplane.
* Persons holding a Part 64 authorisation to taxi an aeroplane.

#### Use of seatbelts

All occupants of aeroplanes operated by [Sample Aviation] must have seat belts or safety harnesses fastened at all times while:

* Taxiing on the ground; and
* During all phases of flight.

#### Aircraft cross-wind limitations

Company aircraft are not to be operated beyond their certificated cross-wind limits and are to be operated IAW the following principles:

* Flight instructors may operate an aircraft to the limitation for cross-wind operations as specified in the AFM.
* At the discretion of the student’s authorising flight instructor, cross-wind limitations applicable to student solo flights may be limited to values below the certificated limit. The reduced limit is to be annotated in the student’s training record and on the flight authorisation sheet for each particular flight.

#### Carriage of lifejackets

For any anticipated flights over water, the PIC will ensure that there are sufficient life jackets for all occupants on board the aeroplane.

The Operations Officer is authorised to provide these when requested. Instructors dispatching students for solo exercises where it is possible a NAVEX leg may be overwater are responsible for ensuring the student has a life jacket on board.

#### Minimum emergency equipment to be carried

All aeroplanes operated by [Sample Aviation] are equipped with approved emergency locator transmitters (ELTs).

If an aeroplane’s ELT is not serviceable, the Operations Officer is authorised to provide a spare portable ELT.

#### Ground operations and movement of persons

The layouts of buildings and aircraft aprons at many airports is frequently not conducive to the management and control of pedestrian activity and as such all staff and students are to remain vigilant when operating aircraft on the ground in order to maximise the safety to pedestrians who may also be in the vicinity of aircraft.

Furthermore, from time-to-time, it may be necessary for staff or students of [Sample Aviation] to facilitate the movement of company guests outside company buildings on the apron, or movement area of the aerodrome and in the vicinity of aircraft (i.e. ***airside***). In these situations, it is be best to assume that these guests have no knowledge of aviation operations and the associated risks.

When company staff, students and their guests are outside the company buildings and in the vicinity of aircraft on the ground, the following precautions are to be observed:

1. Guests of staff and students must not be allowed airside until the PIC or a company staff member is available to escort them.
2. Guests must be given a safety briefing by the PIC or company staff member prior to going airside. Matters to be discussed should include:
3. Don’t wear loose items of clothing or hats;
4. Stay with the escorting pilot or staff member at all times
5. Avoid moving near aircraft unnecessarily, especially near the propeller of apparently stationary aircraft;
6. Look for beacon lights and listen for “clear prop” calls, indicating the imminent starting of engines; and
7. Follow the instructions of the PIC or nominated staff member all times.

#### Starting and ground running of engines for maintenance checks

Only pilots or engineers who hold an appropriate licence endorsed for the particular aircraft type are permitted to run aircraft engines for the purpose of conducting ground maintenance checks.

#### Weight and balance control

The PIC is responsible for ensuring that aeroplanes are loaded IAW the procedures specified in the relevant AFM and that no limits are exceeded for the intended flight and that a weight and balance calculation, or check, is completed before each flight. The record of the calculation forms part of the pre-flight authorisation documentation.

##### Students undergoing Ab-initio Training

Ab initio students will be made aware during ground training of the methods used for calculating weight and balance limits and are to be encouraged to calculate limits for flights they participate in during ab initio training. The record of the calculation forms part of the pre-flight authorisation documentation.

NOTE: Instructors are to check the weight and balance calculations of students before they conduct solo navigation training flights.

##### Standard crew/passenger weights

Company policy for all flights is to use actual crew member weights for all W&B calculations. Weighing Scales for this purpose are available for use in the office.

#### Securing aeroplane

To prevent unauthorised use and damage, the PIC must ensure that the aeroplane is secured whenever it’s left unattended by means such as:

* Throttle locks
* Locking all control surfaces
* Park brake is set on
* Doors are locked
* The aeroplane is securely chocked; pitot covers fitted and tie down restraints attached.

NOTE: If the aeroplane is left in an enclosed hangar, the park brake may be left off, providing the aeroplane is securely chocked.

#### Aircraft briefings and callouts

##### Training - Hand-over and take-over procedures

The following procedure must be used for transferring responsibility for the manipulation of the flight controls:

* When intending to take control, the pilot not flying will say ‘**TAKING OVER**’. The pilot flying will say “**HANDING OVER**” and will relinquish control to the new pilot flying, who will say “**I HAVE CONTROL**”.
* When intending to transfer control, the pilot flying is to say ‘**HANDING OVER**’. The pilot not flying will place their hands on the controls and say ‘**TAKING OVER’**. The pilot flying will then relinquish control and say ‘**YOU HAVE CONTROL**’.

##### Passenger briefings

From the perspective of gaining a training benefit, the following passenger briefing requirements apply to all operations conducted in [Sample Aviation] aeroplanes:

* All passengers must be briefed before take-off by the PIC.
* For any authorised Part 141 or Part 142 flight training operation conducted by the company, this would mean any student pilot permitted to ‘*back seat*’ a dual training flight.
* The instructor is to ensure the person occupying a rear passenger seat is briefed on:
* the need to wear a seatbelt at all times
* the methods of exiting the aircraft through both normal and emergency exits
* the use of life jackets (if required
* that smoking is not permitted.

#### Checklist usage

Company policy requires that the appropriate checklist is used to confirm that an action or series of actions have been completed. During emergency operations memory recall of the relevant checklist items is permitted.

#### Personal electronic devices

A solo student is not permitted to use the navigation function on a personal electronic device on a training flight except in an emergency.

## Fuel Policy

*[This fuel policy has been prepared within a context of aeroplanes. If operating other types of aircraft and/or helicopters, operators will need to detail company and aircraft-specific procedures in relation to this section]*

### Purpose

[Operators will need to detail company-specific procedures in relation to this section]

This section covers the fuel policy and planning requirements to be followed when conducting authorised Part 141 or Part 142 flight training operations in [aeroplanes, aircraft or helicopters] operated by [Sample Aviation].

### Minimum fuel planning requirements

[Operators will need to detail company-specific procedures in relation to this section]

At the start of a flight, our PIC always ensures that the fuel quantity carried includes the following (calculated using the relevant fuel flow rates stated in the tables in 2B2.1):

1. **Taxi fuel** expected to be used before take-off, taking into account local conditions at the departure aerodrome and auxiliary power unit consumption (if applicable). See tables in 0 below for taxi allowances and section 2B2.1 for operating conditions
2. The **trip fuel** required to enable the aircraft to fly until landing at the destination aerodrome, taking into account the operating conditions (see cruise fuel flow rates in tables in 0 below and considerations listed in 2B2.1, including (*as applicable*):
3. Fuel for take-off and climb from departure aerodrome elevation to initial cruising level/altitude, taking into account the expected departure routing.
4. Fuel for cruise from top of climb to top of descent, including any step climb or descent from the initial cruising level/altitude mentioned in paragraph a) above.
5. Fuel from top of the descent to the point where the approach is initiated, taking into account the expected arrival procedure.
6. Fuel for executing an approach and landing at the destination aerodrome.
7. **Alternate fuel** (if required) to enable an aircraft to do the following in a sequence, using cruise fuel flow rates listed in tables 0 and considering operating conditions in section 2B2.1:
8. A missed approach at the destination aerodrome
9. Fly the expected routing to the destination alternate
10. Conduct the approach

* land at the destination alternate.

1. A **fuel fixed reserve** covering the amount of fuel:
2. Required to fly at 1,500 feet above aerodrome elevation in ISA conditions for the period of time specified below:
3. Small aeroplanes (< 5700kg) – 30 minutes for day-VFR at the holding rate.
4. Small aeroplanes (< 5700kg) – 45 minutes for IFR or night-VFR at the holding rate.
5. All turbojets or large (> 5700kg) turboprop aeroplanes – 30 minutes at the holding rate.
6. Large piston aeroplanes (> 5700kg) – 45 minutes at the holding rate.

* calculated with the estimated weight on arrival at the destination alternate (or the destination aerodrome when no destination alternate is required).

1. Which is usable fuel remaining in the fuel tanks until completion of the final landing.
2. **Additional fuel** (if required – multi-engine operations or pressurized aircraft) which is the supplementary amount of fuel required to allow the aircraft, in the event of engine failure or loss of pressurization, whichever results in the greater subsequent fuel consumption, occurs at the most critical point. See section 2B3.4 one engine fuel flow rate and depressurized fuel flow rate and section 2B2.1 operating conditions:
3. to proceed to an alternate aerodrome; and
4. to fly for 15 minutes at holding speed at 1,500 feet above aerodrome elevation in ISA conditions; and
5. to make an approach and landing.
6. **Holding fuel** (if required) covering the amount of fuel required to fly for the period of time anticipated to be required for holding (taking into account the operating conditions) calculated at the holding fuel consumption rate established for the aircraft for the anticipated meteorological conditions or ISA, using holding fuel rates listed in tables 0 and considering operating conditions in section 2B2.1.
7. **Variable fuel** (only if the aircraft operated is turbojet, large aeroplane [turboprop or piston) – 5% of the trip fuel for the flight.
8. Fuel required is the sum of numbers (1) to (7) above.
9. **Discretionary fuel** in accordance with section 0 below.
10. **Fuel margin** which is the difference between fuel required (item 8), discretionary fuel (item 9) and endurance (item 11) of this section.
11. Endurance (the sum of items 8, 9 and 10) of this section.

#### Fuel operating conditions

Due to the fact there are many variables pertaining to operational conditions that influence the determination of usable fuel for a flight, [Sample Aviation] takes into account the following items:

[Not all issues listed below are legal requirements. Operator must expand on the points below outlining procedures and requirements specific to their operation. Operators may need to include more points depending on the nature of their operations; however, these are the minimum requirements]

1. Anticipated aircraft weight
2. NOTAMS
3. Meteorological reports and forecasts
4. ATC procedures, restrictions and anticipated delays
5. The effects of any deferred maintenance items and configuration deviations (if applicable)
6. The potential for deviations from the planned flight because of unforeseen factors.

### Fuel flow rates

[The tables below should be adjusted and multiplied to suit the number, make and model of all the different types of aircraft that the operator is using.]

[If an operator is to prescribe fuel amounts and or fuel flow rates in the table below, the fuel data on which the figures are based must be sourced from, in order of priority, a current aircraft-specific fuel consumption monitoring system, original equipment manufacturer fuel consumption data (from an original equipment manufacturer’s aircraft flight manual or pilot’s operating handbook), engine manufacturer’s fuel consumption data or, if all of the preceding are not available for the precise conditions for the flight, known or estimated fuel consumption data.]

[Sample Aviation] operates the following aircraft, and fuel flow rates are as follows:

#### Cessna 152 [C152]

|  |  |  |
| --- | --- | --- |
| Cessna 152 | Allowance for taxi, departure and arrival | Litres [x Ltr] |
| Cruise fuel flow rate (@ 95 KTAS) | litres per hour [xx Ltr/hr] |
| Holding fuel flow rate (@ 90 KTAS) | litres per hour [xx Ltr/hr] |

#### Cessna 172 [C172]

|  |  |  |
| --- | --- | --- |
| Cessna 172 | Allowance for taxi, departure and arrival | Litres [x Ltr] |
| Cruise fuel flow rate (@ 110 KTAS) | litres per hour [xx Ltr/hr] |
| Holding fuel flow rate (@ 100 KTAS) | litres per hour [xx Ltr/hr] |

#### Piper Arrow [PA-28R]

|  |  |  |
| --- | --- | --- |
| Piper Arrow | Allowance for taxi, departure and arrival | Litres [x Ltr] |
| Cruise fuel flow rate (@ 120 KTAS) | litres per hour [xx Ltr/hr] |
| Holding fuel flow rate (@ 100 KTAS) | litres per hour [xx Ltr/hr] |

#### Beechcraft Duchess [BE-76]

|  |  |  |
| --- | --- | --- |
| Duchess BE-76 | Allowance for taxi, departure and arrival | Litres [x Ltr] |
| Cruise fuel flow (@ 140 KTAS) | litres per hour [xx Ltr/hr] |
| One Engine fuel flow (@ 110 KTAS) | litres per hour [xx Ltr/hr] |
| Holding fuel flow (@ 120 KTAS) | litres per hour [xx Ltr/hr] |

### Discretionary fuel for solo training flights

[Operators will need to detail company-specific procedures in relation to this section]

Instructors working for [Sample Aviation] ensure that, in addition to the fuel required to safely conduct the flight (including any prescribed fuel reserves), a suitable amount of discretionary fuel is carried on all solo training flights. This amount is based on normal cruise fuel flow rates and is currently set at:

• **[45] minutes** for training area flights; and

• **[60] minutes** for cross country navigation flights.

These amounts will be revised from time-to-time in the light of experience 2B7, as required by the HOO and are promulgated to staff and students via an Exposition amendment.

### Fuel related procedures

#### Determining and recording fuel quantity - pre-flight

[Operators will need to detail company-specific procedures in relation to this section]

[Operators must specify instructions and procedures for recording two matters. Firstly, before flight commencement, the quantity of usable fuel on board. Secondly, after each fuel quantity check conducted during a flight, the fuel quantity data evaluated and determined in accordance with the procedures specified.]

The pilot in command ensures that a determination of the quantity of usable fuel on board is conducted before flight. Fuel quantity gauge readings are cross checked to ensure accurate fuel calculations against one of the following methods:

* Visual confirmation (for example: full, tabs or dipstick reading)
* Calculated (for example: comparing fuel on board from previous flight with fuel added with reference to aircraft journey log Form 9B20).
* Any significant fuel quantity discrepancy variation between actual fuel on-board (gauge) and calculated (journey log) is reported to a qualified licenced aircraft maintenance engineer for further investigation. *[Operators should establish what discrepancy variation in percentage is tolerable. Industry practices are a maximum of 3% discrepancy.]*
* If there is a need to defuel prior to flight, then this must be carried out by an appropriately approved and qualified person and in the appropriate location as outlined in section 2B8. here.

#### Determining and recording fuel quantity - in-flight

[Operators will need to detail company-specific procedures in relation to this section]

[There is no specific timeframe established as a legislative requirement for regular fuel checks. The legislative requirement is solely that fuel quantity checks are conducted at regular intervals. The 30-minute interval is a standard that will be accepted by CASA. Operators may propose alternative intervals with reasoning for their selection.]

During all flights, at a [XX]-minute interval, pilots conduct a fuel quantity check whereby the usable fuel remaining is evaluated to compare planned fuel consumption with actual fuel consumption. This is accomplished by cross-referencing the fuel remaining on gauges with an appropriately calculated fuel log covering aircraft endurance – litres and minutes of fuel remaining. Our pilots determine the expected usable fuel remaining on arrival at the destination aerodrome and whether the usable fuel remaining is sufficient to complete the planned flight.

Upon conducting this cross-reference, if there is an unexplained discrepancy between the fuel gauge reading and the fuel log of more than [XX minutes and/or litres\*], the pilot in command needs to take into consideration the items in section 2B5.2.1 below.

[\*Operators to specify maximum tolerance in minutes and/or litres]

##### In flight fuel procedures

[Operators will need to detail company-specific procedures in relation to this section]

If, after flight commencement, fuel is used for a purpose other than that originally intended during pre-flight planning, the pilot in command reanalyses and, if applicable, adjusts the planned flight.

If it is determined that the usable fuel expected to be remaining on arrival at the destination aerodrome is less than the fixed fuel reserve (where no alternate aerodrome is required), then the pilot takes appropriate action and proceed to an en-route alternate so as to perform a safe landing with not less than the fixed fuel reserve remaining.

If it is determined that the usable fuel expected to be remaining on arrival at the destination aerodrome is less than the fixed fuel reserve plus alternate fuel (if applicable), the pilot in command considers the traffic and the operational conditions prevailing at the destination aerodrome, at the destination alternate and at any other en-route alternate, and, if insufficient fuel is available to account for the traffic or operational conditions at the destination aerodrome, then the pilot in command ensures a safe landing can be made at the destination alternate or an en-route alternate with not less than fixed fuel reserve remaining.

If the pilot decides to proceed to an en-route alternate from a decision point, the amount of usable fuel on board includes:

1. Trip fuel from the decision point
2. Holding fuel (as required)
3. Variable fuel reserve (if specified in Table 1)
4. Alternate fuel (if required)
5. Fixed fuel reserve
6. Additional fuel (if applicable).

At any time during flight, the amount of usable fuel on board to continue a flight safely includes:

1. Trip fuel from that time
2. Holding fuel (as required)
3. Alternate fuel (if required)
4. Fixed fuel reserve
5. Additional fuel (if applicable).

The pilot requests delay information from ATC when unforeseen factors may result in landing at the destination aerodrome with less than the following:

1. if alternate fuel is required — alternate fuel plus fixed fuel reserve
2. if alternate fuel is not required — fixed fuel reserve.

The pilot in command has been instructed to advise the ATC of a minimal fuel state that when, having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome may result in landing with less than the fixed fuel reserve for the flight. This will be broadcast as ‘**MINIMUM FUEL**’.

The pilot in command has been instructed to declare a situation of emergency fuel when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the fixed fuel reserve for the flight. The pilot in command must declare an emergency fuel state by broadcasting ‘**MAYDAY, MAYDAY, MAYDAY FUEL’**.

##### Considerations at point of inflight decision-making and/or decision point

[Operators will need to detail company-specific procedures in relation to this section]

Should the need arise to make an inflight decision whether a landing can be made at the destination or any available en-route alternate, the following is taken into account:

* Meteorological conditions, both en-route and at the destination, to include hazardous phenomena such as thunderstorms, turbulence, icing and restrictions to visibility
* Field conditions, such as runway condition and availability and status of navigation aids
* En-route navigation systems and facilities status, where possible failures could affect the safe continuation or completion of the flight
* En-route fuel supply, including actual en-route consumption compared to planned consumption, as well as the impact of any changes of alternate airport or additional en-route delays
* Airborne equipment that becomes inoperative, which results in an increased fuel consumption or a performance or operational decrement that could affect the flight crew’s ability to make a safe landing at an approved airport
* Air traffic management concerns, such as re-routes, altitude or speed restrictions and facilities or system failures or delays
* Security concerns that could affect the routing of the flight or its airport of intended landing.

The following equi-time point (ETP) and point of no return (PNR) calculation is used to assist pilots in making inflight decisions.

##### Equi-time point (ETP) selection and calculation

[Sample Aviation] calculates its ETP for each aircraft type and each flight using the equation cited below. The selection of aerodromes on which [Sample Aviation]’s ETP calculation is based takes into consideration the characteristics of the route being flown. For long distance routes between suitable en-route alternate aerodromes (ERA), such as in oceanic or remote areas, the planned route of flight is usually examined to identify suitable ERAs based on aircraft requirements, aerodrome capability, and weather.

The ETP formula or equation that [Sample Aviation] uses normally returns the distance along track to the ETP from the departure point with input values of total distance, groundspeed back and groundspeed forward, as shown below:

|  |  |  |
| --- | --- | --- |
| Ground Distance to ETP = | *Total Distance* × *Ground Speed Back* | = Nm |
| *Ground Speed Back* + *Ground Speed Forward* |

[Operators may need to consider adding in one-engine inoperative ETP strategy and off-track ETP method if required]

##### Point of no return (PNR) selection and calculation

[Sample Aviation] calculates its PNR for each aircraft type and each flight using the equation cited below.

While the PNR is usually calculated and specified in the operational flight plan (OFP), such a calculation does not typically take into account any discretionary fuel, or the real-time changes in fuel consumption that may occur after departure. Therefore, the actual PNR for [Sample Aviation]’s flights will sometimes be reached later in that specific flight than the point originally calculated in the previously calculated OFP.

The equation [Sample Aviation] uses when calculating time to a PNR is:

|  |  |
| --- | --- |
| Time to PNR = | *Safe Endurance* × *Ground Speed Back* |
| *Ground Speed Back* + *Ground Speed Forward* |

|  |  |
| --- | --- |
| Where safe endurance is: | *Total Fuel Quantity* − *Required Fuel Reserves* |
| *Average* *Fuel Consumption Rate* |

NOTE: When calculating time to PNR, the units (hours or minutes) for endurance and groundspeed must be consistent.

The equation for calculating ground distance to a PNR is:

|  |  |
| --- | --- |
| Ground Distance to PNR = | *Safe Endurance* × *Ground Speed Back* × *Ground Speed Forward* |
| *Ground* *Speed Back* + *Ground Speed Forward* |

#### Determining and monitoring fuel quantity - post-flight

[Operators will need to detail company-specific procedures in relation to this section]

Upon returning from a flight, pilots are required to complete all relevant fuel documentation including the journey log (Form 9B20) with the amount of fuel at shut-down. Any significant fuel quantity discrepancy above 3% variation between actual fuel on-board (gauge) and completed journey log is reported to a qualified licenced aircraft maintenance engineer for further investigation.

[Operators should establish what discrepancy variation in percentage is tolerable. Industry practices are a maximum of 3% discrepancy]

### Fuel types

[Operators to confirm if the below fuel types are correct for their aircraft]

All aeroplanes operated by [Sample Aviation] use:

* AVGAS 100 (Green colour – also known as AVGAS 100/130); or
* AVGAS 100LL (Blue colour).

No other type or grade of fuel is to be used.

### Fuel usage monitoring

[Operators will need to detail company-specific procedures in relation to this section]

Under the supervision of the HOO, the Operations Officer monitors fuel usage by dividing monthly total fuel usage for each aeroplane by monthly total ‘tacho time’ (or maintenance clock time) to arrive at an average fuel rate per aeroplane.

If there is a significant variance from previous figures, the Operations Officer creates a hazard and incident report using Form 9B16 and report the matter to the Safety Manager, the HOO and the Senior Instructors.

As soon as practicable, the Operations Officer arranges maintenance action to take place. Should the cause be of a more long-term nature, the Safety Manager liaises with the HOO to amend the planned fuel rates specified in section 2B2.1.

### Aircraft refuelling

[Operators will need to detail company-specific procedures in relation to this section]

All aircraft operated by [Sample Aviation] are to be refuelled from a bowser or refuelling truck using the following procedure:

1. Ensure the following safety precautions, external to an aircraft, are present prior to commencing fuelling operations:
2. Ensure the area is clearly placarded as ‘no-smoking’ and the limits of this area shall be a sealed building or at least 15 metres (50 ft) from the aircraft of ground refuelling equipment
3. Ensure no persons are smoking or using a naked flame within 15 metres (50 ft) of the aircraft and ground fuelling equipment
4. Except in the case of aircraft, operate an internal combustion engine or any electrical switch, battery, generator, motor or other electrical apparatus within 15 metres (50 ft) of the aircraft’s fuel tank filling points or vent outlets, and ground fuelling equipment unless the engine, switch, generator, motor or apparatus complies with the provisions in Appendix of the Civil Aviation Order 20.9.
5. Ensure there are no persons on-board the aircraft.
6. Position the aeroplane to allow easy movement if there is an emergency: *[This would also apply to mobile fuelling equipment if used]*
7. During fuelling operations, the aircraft and ground fuelling equipment shall be so located that no fuel tank filling points or vent outlets lie:
8. within 5 metres (17 ft) of any sealed building
9. within 6 metres (20 ft) of other stationary aircraft
10. within 15 metres (50 ft) of any exposed public area
11. within 9 metres (30 ft) of any unsealed building in the case of aircraft with a maximum take-off weight not exceeding 5,700 kg (12,566 lb).
12. Refuelling or defueling of an aircraft is not to be conducted in a hangar.
13. At least 2 fire extinguishers of approved type and capacity must be positioned:
14. within 15 metres, but not less than 6 metres, from the aircraft and the fuelling equipment, or
15. carried on the fuelling equipment.
16. Secure static leads.
17. Remove tank cap.
18. Refuel aircraft.
19. Secure tank caps.
20. Remove static leads.
21. Complete required documentation. All fuel added must be recorded in the aircraft journey log (Form 9B20) and then updated on the flight authorisation sheet in the ops room at the completion of the flight (Form 9B19).

NOTE: If no means other than refuelling from a drum is available, the HOO approves the procedure.

[If the operator opts for drum fuelling, these procedures should be outlined here]

#### Action in the event of a fire hazard

[Operators will need to detail company-specific procedures in relation to this section]

In the event of a spill or a fire hazard, [Sample Aviation] follows the following procedures:

1. A fuelling operation is stopped and the appropriate airport fire service is notified when any fuel of a quantity likely to create a fire hazard is spilled within 15 metres (50 ft) of the aircraft or ground refuelling equipment and does not recommence until the fire has been removed.
2. Mobile power units, vehicles and power operated loading devices operating within 15 metres (50 ft) of the spilled fuel are shut down.
3. Maintenance work of any nature on or within the aircraft shall be suspended and not recommenced until the spilled fuel has been removed.
4. If fuel is spilled, the safety manager is immediately notified to obtain a fuel spill kit, follow their order in relation to the spill, and when time permits, fill in a hazard and incident report using Form 9B16.

### Refuelling by students

Only students who completed the following are permitted to conduct unsupervised refuelling:

* successfully completed refuelling training
* been assessed as competent in unit C4 of the PART 61 MOS
* have written approval to conduct unsupervised refuelling entered into their training records by their usual instructor or the HOO.

### Fuel quality check

[Operators will need to detail company-specific procedures in relation to this section]

Before the first flight of the day and after refuelling, the PIC carries out an [aeroplane, aircraft or helicopter] fuel drain check.

The fuel quality check is to confirm:

* the absence of water or contamination
* the grade and type of fuel.

If a small quantity of water is detected, the fuel is drained until all traces are removed from the fuel system before starting engines.

When significant quantities of contamination are found, this is:

* endorsed on the maintenance release
* reported to the Operations Officer for aircraft reallocation
* stated in a report using Form 9B16, for submission to the Safety Manager.

### Engine oil and hydraulic fluid management

[Operators will need to detail company-specific procedures in relation to this section]

Only oil and hydraulic fluid of the types specified in the AFM or manufacturers approved data as detailed on the maintenance release for a particular aeroplane may be added to that aeroplane’s engine. Oil and hydraulic fluid quantities will be in IAW the manufacturer’s or AFM requirements.

Oil is carried on all navigation exercises. At intermediate landing points, if there is enough time on the ground, the oil quantity is checked and topped up if and as required. Any oil added is recorded on the maintenance release.

Oil consumption that exceeds the manufacturer’s data is endorsed on the maintenance release, reported to the Operations Officer for aircraft reallocation and on Form 9B16 for submission to the Safety Manager.

Should there be a need to add hydraulic fluid, [Sample Aviation] requires liaison with a licenced aircraft maintenance engineer before doing so.

## Aircraft Airworthiness

### System of maintenance

The log book statement details how the aircraft should be maintained. The maintenance release details what schedule was used in order to issue the maintenance release and control the maintenance in its period of validity.

### Scheduling of Maintenance

#### Responsibility

The Operations Officer shall review MRs on a daily basis for upcoming routine maintenance items and any entries regarding unserviceable aircraft made during operations.

The Operations Officer shall liaise with the maintenance provider to action any outstanding maintenance items or rectify reported defects.

Before releasing the aircraft for flying operations, the Operations Officer shall verify that any MR entry has been appropriately cleared as applicable.

### Maintenance Release (MR)

#### Use of the MR form

[Sample Aviation] uses a standard CASA maintenance release form. This is used for:

1. Notification if maintenance is required to be performed during the period of validity of the MR (Part1).
2. Recording defects or damage to the aircraft (Part 2).
3. Recording flight time, oil uplifts and landings (Part 3).
4. Certifications for the conduct of the daily inspection (Part 3).

#### MR procedures before flight

Before a flight the PIC must check the MR to ensure:

1. The date and/or the total time in service (TTIS) when the MR expires will not be exceeded during the intended flight (Part 1).
2. The date and/or any total time in service of any maintenance required to be performed will not be exceeded during the intended flight (Part 1).
3. Any defects or damage listed on Part 2 that are required by aircraft certification or are items that may affect the aircrafts airworthiness are rectified prior to the intended flight.
4. Any equipment listed as unserviceable in Part 2 is not required for the intended flight or is specified as mandatory equipment in the aircraft flight manual.
5. The daily inspection has been certified correctly in Part 3 of the MR showing the date, signature and flight crew licence number of the person who performed the inspection.

NOTE: The MR must be carried on all flights.

#### Daily Inspections

Persons conducting the daily inspection must do so in accordance with the appropriate schedule.

Part 1 of the MR will specify the schedule/system of maintenance to which the aircraft is being maintained.

The daily inspection for company aircraft maintained to the CASA maintenance schedule is found in Schedule 5 of the Civil Aviation Regulations.

* If Part 1 of the MR specifies a maintenance schedule other than schedule 5 (i.e. manufacturers schedule or system of maintenance) then the person conducting the daily inspection must have a copy of that inspection at hand prior to conducting the daily inspection.

#### Recording of Defects

Pilots are reminded of their responsibilities in recording any defect on the MR IAW CAR 50 (2).

If an endorsement on Part 2 of the MR is a major defect or major damage or abnormal flight or ground loads have been imposed on the aircraft, the MR ceases to be in force until such time as the major defect or damage is rectified and the endorsement cleared by an appropriately authorised or licenced person.

Defects that are not major defects or damage may not render the MR invalid. The PIC will assess whether any such defect is in an item of equipment that is required for the particular flight. For example, if a night flight is planned and instrument lighting is unserviceable, the flight must not be commenced until the lighting is rectified. However, a Day VFR flight would not be affected. Some defects may render the aircraft unserviceable as the component or equipment is required by type certification.

If it is possible there may be further flight before the major defect or major damage (or any damage caused by abnormal flight or ground loads) is rectified, any person aware of those matters must endorse the MR with the facts of the situation, stating the aircraft is un-airworthy and the MR ceases to be in force.

Where the PIC is a student and is unsure of the status of damage or a defect, the matter should be referred to an instructor or Senior Instructor. If the unserviceability is confirmed, they are to advise the Operations Officer. The Operations Officer will consult with the maintenance provider or suitably qualified maintenance engineer.

On completion of each flight, the PIC must complete the journey log for the aeroplane.

On completion of flying operations each day, an instructor nominated by the roster, is to calculate the time in service for the day for each aeroplane flown and record the daily time in service and total time in service on the maintenance release.

Oil uplift and number of daily landings are also to be recorded on the maintenance release.

#### Major defects

A major defect means damage of a kind that may affect the safety of the aeroplane (*CASR Part 1 – Definitions*). The HOO or their delegate must ensure all major defects are investigated and reported to CASA by submission of a Service Difficulty report (CASA Form 404 or online).

The raising of a Service Difficulty report is the responsibility of the registered operator of the aeroplane.

### Corrective action procedures

Any doubts concerning the airworthiness of an aeroplane must be initially referred to the HOO, a Senior Instructor or the supervising instructor for the day.

An aeroplane may be flown with an existing defect by use of a permissible unserviceability (PUS) or the approval of a ferry flight by the issue of a special flight permit. The HOO or Senior Instructor, in conjunction with the Operations Officer is to liaise with the maintenance provider to apply for permission from CASA or a CASA delegate. Permissible unserviceabilities must be endorsed on the aeroplane’s maintenance release.

The HOO must be advised as soon as practicable if an aircraft is to be flown using a PUS.

### Pilot maintenance

#### Company Policy

A flight instructor may carry out maintenance provided:

* The maintenance is of a type specified in CAR Schedule 8.
* They have been trained by a certified LAME as specified in CAR Schedule 8 and approved by the HOO
* Certification evidence, via a letter, will be provided by the LAME for those maintenance actions the instructor is authorised to perform. The letter is to contain date of the training together with the LAME’s name, signature and license number. The HOO will co-sign and date this letter and place it on the instructors file.
* There is approved data and tooling available to the instructor.
* Any parts fitted have been stored, tracked and their installation recorded in an appropriate recording system.
* Maintenance other than a daily inspection must be certified on Part 2 of the maintenance release. Induction training for flight instructors may also include maintenance certification requirements.

### Lightning strike

If a lightning strike is experienced in flight:

* The PICs must report it on Part 2 of the aeroplane maintenance release.
* The PICs must report the event to the HOO, the Operations Officer and Safety Manager via Form 9B16.
* The Operations Officer must report it to the maintenance organisation for investigation.

### Bird or animal strike

If a bird or animal strike is experienced in flight:

* The PIC must report it on Part 2 of the aeroplane maintenance release.
* The PIC must report the event to the HOO, the Operations Officer and Safety Manager via Form 9B16.
* The Operations Officer must inform the maintenance organisation for investigation.

If the strike took place at a registered aerodrome, the PIC must report the event to the ATSB within 72 hours.

### Unserviceabilities away from home base

When away from the home base, an instructor is permitted to rectify and certify for the rectification of an unserviceability that is listed in CAR Schedule 8 provided the instructor is trained and approved for such maintenance (see 2C6).

* If *CAR Schedule 8* is not applicable, the instructor must liaise with the HOO to establish if suitable maintenance resources are available locally.
* If local resources are not available, the HOO or their delegate will make arrangements to secure and protect the aeroplane and arrange recovery.

# INTERNAL TRAINING & CHECKING MANUAL

### Purpose of this volume

This volume contains the internal and checking system manual as prescribed by regulation *142.340(1)(s)(vi)*.

### Objective of the system

The Internal Training and Checking System (***IT&C***) enables the safe, compliant and effective management of company training activities.

The objective of the system is to ensure that standardised training is delivered safely by competent and qualified instructors on an ongoing basis.

To ensure this objective is met, [Sample Aviation] does not quarantine staff conducting Part 142 training activities; therefore the IT&C system applies to all staff instructors.

### Function and Structure

#### Management of the Internal Training & Checking System

The HOO is responsible for managing the company’s IT&C system.

#### Responsibilities and accountabilities

The HOO, as the manager of the IT&C system is responsible for planning, scheduling, conducting and recording the results of the training.

In particular, the HOO’s responsibilities are:

1. Monitoring and maintaining the IT&C System ensuring compliance with the Exposition.
2. Ensuring that instructors are competent IAW Part 61 MOS (by the use of Form 9B9).
3. Using forms 9B4, 9B5, 9B6, 9B7, 9B8 or 9B9 (as applicable), to ensure that induction or familiarisation training is completed for:
4. Instructors
5. Senior Instructors
6. Flight Examiners
7. Key Personnel.
8. Ensuring that personnel are provided with the information and documentation they need to properly carry out their duties and responsibilities.
9. Ensuring that Senior Instructors hold valid company standardisation and proficiency checks (Form 9B9).
10. Observing that T&C conducted by the Senior Instructors is satisfactory by:
11. Inflight observation of Standardisation & Proficiency check flights conducted by Senior Instructors
12. Periodically sampling the delivery of initial and refresher ground training courses conducted by Senior Instructors.
13. To ensure that Senior Instructors, when conducting an IT&C activity:
14. are authorised under Part 61 to conduct the activity
15. have successfully completed the training set out in the company’s IT&C system manual
16. have successfully completed the company’s training in HF/NTS
17. Delegating duties to either or both Senior Instructors as required.

#### Appointment of T&C staff

Senior Instructors may be assigned by the HOO to perform IT&C duties in accordance with the requirements of the system.

Before being approved, the nominated T&C staff will observe the delivery of ground based and inflight T&C by either the HOO or other approved T&C staff and they are then to conduct this T&C under the supervision of the HOO or other approved T&C staff.

Once a satisfactory standard is achieved the HOO is to record this on a supplementary induction form (Form 9B4) and after this is completed and Form 9B11 has been updated, the nominee may commence T&C duties.

### IT&C System description

The [Sample Aviation] IT&C system provides for:

1. Instructor induction training and checking, which comprises:
2. Course IT1 – General Company Overview
3. Course IT2 – Training Management System
4. Course IT3 – Human Factors and Non-Technical Skills
5. Course IT4 - Fatigue Management Training
6. Course IT5 - A training course documented in the Global 123 FSTD STOM for the initial training, assessment and certification of instructors to conduct applicable Part 61 training in the company’s FSTD.
7. Initial standardisation and proficiency (***S&P***) checking
8. Recurrent training and checking for operational staff, which comprises:
9. Refresher flying training (if required)
10. Refresher HF/NTS Training
11. Annual (recurrent) S&P checking; and
12. Refresher fatigue management training, at three year intervals
13. Remedial training after an unsuccessful check
14. Familiarisation training for Key Personnel, which comprises:
15. Training relevant to newly appointed Key Personnel and their positions and those appointed to standby positions.

### Instructor Induction Training

Induction training is an integral part of the company’s IT&C system and is to be completed by all new instructors prior to commencing flight training activities.

The induction training is to ensure all newly recruited instructors are equipped with the knowledge and skills to safely and effectively discharge their duties and responsibilities. This is achieved by conducting theory courses which provide:

1. An overview of the Company, its structure and philosophies and the company DAMP.
2. An understanding of the Company’s management of training.
3. An overview of procedures which are pertinent to the administration of the activities detailed in the Exposition.
4. Initial training and certification in the use of the company FSTD.
5. Initial S&P checking of company personnel before they are assigned to rostered flight training activities.

#### Internal Training Courses

##### IT1 – General Company overview

This course is designed to provide an overview of Company procedures. New instructors will self-study and receive training in the following topics:

1. As outlined in the Induction Training Course IT1A (refer appendix 9B6);
2. Instructional technique for [Sample Aviation] flight instructors, conducted by the HOO or an assigned Senior Instructor;
3. Exposition material; and
4. Function and design of the SMS (conducted by the Safety Manager).

The trainer will ensure that knowledge has been acquired through oral quizzes derived from topics in Form 9B6, correcting where necessary and will certify completion on the same form.

##### IT2 – Training Management System

This course is designed to provide an overview of the Training Management System (***TMS***). New instructors will self-study and receive training in the following topics:

* As outlined in the Induction Training Course IT1B (refer to Form 9B7)

The trainer will ensure knowledge has been acquired through oral quizzes derived from topics in Form 9B7, correcting where necessary and will certify completion on the same form.

##### IT3 – Human Factors and Non-Technical Skills (HF/NTS) program

IT3 training is designed to induct the new instructor into the company’s HF/NTS program IAW the syllabus overview outlined in 9A4.

The induction training conducted by [Sample Aviation] is aimed at providing instructors with basic level of HF/NTS knowledge and maintaining this knowledge and skills over time.

This aim is achieved by providing instructors with an understanding of how and why errors may occur during training, the risk these errors represent and what can be done to manage the risk. This knowledge can then be applied to minimise the potential for future errors and improve flight safety.

New instructors will be trained on the companies HF and NTS program through practical instruction with the HOO or assigned Senior Instructor.

[Sample Aviation] has utilised the Safety Behaviours: Human factors for pilots (SB - [***HF for pilots***](http://shop.casa.gov.au/products/safety-behaviours-human-factors-for-pilots)) kit produced by CASA as a resource for developing the HF/NTS internal training syllabus at 9A4.

The induction training Course (IT3) is comprised of the following:

1. The HOO or Senior Instructor (the ***Trainer***) will choose two module C topics from the syllabus.
2. The instructor will self-study the corresponding chapters from the CASA *SB:HF for pilots – Resource Guide*.
3. Where applicable the instructor will watch the *SB:HF for pilots – Introduction and Airtime* drama video.
4. The instructor will complete the exercises that correspond to the selected chapters.
5. The Trainer will review the completed exercises and discuss with the instructor to ensure full awareness of the subjects has been achieved and that competency has been achieved. The Trainer will then place the completed exercises on the instructors file.

##### HF/NTS Refresher program

he Company’s refresher HF/NTS training will be conducted on an annual basis coinciding with the instructor’s Standardisation and Proficiency check.

The syllabus sets out topics which may be chosen and is designed to cycle through on a 3-year basis.

The refresher training course will include the following tasks:

1. The Trainer will choose 4 module C topics from the syllabus.
2. The instructor will self-study the corresponding chapters from the *SB:HF for pilots – Resource Guide*.
3. Where applicable the instructor will watch the *SB:HF for pilots – Introduction and Airtime* drama video.
4. The instructor will complete the exercises that correspond to the selected chapters.
5. The instructor will plan three HF related hazards that could exist in their operations or similar operations and consider ways for managing the risk (corresponding to the module B topic in the sample syllabus below.
6. The Trainer will review the completed exercises and discuss these and the instructor’s consideration of the three HF hazards with the instructor to ensure full awareness of the subjects has been achieved.

##### HF/NTS Syllabus Overview

A syllabus is provided at appendix 9A4 and covers the following major topics included in the CASA *SB: HF for pilots’ toolkit*:

* Fatigue (see para 3A5.2, CAO 48.1 2013, VOLUME 7 and appendix 9A5 for details of this training)
* The implications of too much stress
* The effects of the use of alcohol and other drugs
* Communication
* Teamwork
* Leadership
* Situational awareness
* Decision making
* Threat and error management
* Airmanship.

#### IT4 - Fatigue System Training

The Fatigue System training offered by [Sample Aviation] is divided into two initial components and one ongoing recurrent component.

The initial components are ideally completed prior to a new operational staff commencing duties; however the following relief is provided:

1. All operational staff will complete training in *specific* fatigue management processes and procedures training *before* commencing authorisation, flying or rostering activities with the company.
2. All operational staff will complete fatigue knowledge training as soon as possible after they commence employment with [Sample Aviation] and may be delayed if necessary but in any case no longer than 6 months from when they commenced employment

The recurrent component comprises:

1. A refresher course conducted every three years.

NOTE: All Fatigue System Training must be completed IAW VOLUME 7- 7A6 of this Exposition.

#### Key Personnel familiarisation training

IAW with regulations *141.115*, *142.170* and paragraph 1A2.7 of this Exposition, all Key Personnel employed by the company are required to undergo familiarisation training before they carry out the responsibilities of their position. This training is conducted within the company’s IT&C system.

##### Conduct of Key Personnel familiarisation training

[Sample Aviation] will nominate a trainer from within the company’s IT&C system with suitable knowledge of relevant operational procedures and Safety Management to conduct familiarisation training of Key Personnel, before they begin to carry out their responsibilities. This training shall use the topics on Form 9B5 as a guide to the material to be covered.

The person conducting the training will complete and store the Key Personnel familiarisation training records using Form 9B5 in the individual’s personnel file as evidence of completion of training.

#### Standardisation and Proficiency Checks

##### Policy

An instructor must complete an initial standardisation and proficiency (S&P) check before commencing flight training duties. The initial S&P check will be followed by an annual S&P check. (Form 9B9)

##### Conduct of S&P Checks

S&P checks will be conducted by one of the company Checkers. The checks will include a review of the instructor’s competency to deliver long and pre-flight briefings and flight instruction IAW the syllabus and lesson plans that the instructor is expected to deliver.

##### Scheduling of S&P Checks

The Checker will give sufficient advance notice of the topic to be assessed during the check.

During delivery of briefings and flight demonstrations, the Checker will assume the role of a student-under-instruction. The Checker will occupy the left-hand seat and will be the PIC for the in-flight component of the check and will brief the instructor on the management of a real emergency.

##### Standards required for S&P Check

The minimum competency standards for the assessment of competency in the S&P check will be:

1. In the briefing, the instructor’s ability to be consistent with the ground component requirements, as selected, from CASA Form 61-1518 (flight instructor proficiency check flight test report) and with further reference to Schedule 6, Appendix 5, 2 (knowledge requirements) of the MOS.
2. In the minimum airborne flight instruction component, the standards described in Schedule 5, Section T, Appendix T1 of the MOS
3. The Checker will record results on Form 9B16 and update Form 9B11 with the new expiry date.
4. For the initial S&P check, the Checker will also record the result on Form 9B4 (Initial Instructor Employee Record).

##### Debriefing

The Checker will advise the instructor of the overall result of the check during the post flight debrief.

If an instructor has demonstrated marginal performance, the Checker may require a further standardisation and proficiency check to be completed following the completion of remedial training.

##### Actions following an unsatisfactory check

Should the result of the S&P check be unsatisfactory, the following actions must occur:

* The Checker will debrief the instructor on the areas of unsatisfactory performance
* The Checker will decide whether or not there is a need for remedial training flights prior to another check and arrange such training as required
* The Checker will detail the deficiency and corrective plan in the comments area on Form 9B9 and ensure that the matter is brought to the HOO’s attention.
* IAW regulation *142.190(2)(q)*, the HOO must notify CASA, in writing, within 14 days of an unsatisfactory check, advising the name, position and ARN of the instructor concerned.

#### Refresher and Remedial Training

##### Refresher Training

To maintain the required skills and knowledge, refresher (continuation) training is provided to all instructors and examiners as requested or as required.

Each instructor and examiner is entitled to refresher training including a minimum of:

* [x.x] hours solo flight time; and
* [x.x] hours dual training, in the month leading up to an annual S&P Check or Flight Instructor Proficiency Check.

Refresher training is to be scheduled by the HOO after consultation with the individual instructor and if requested, additional refresher training will also be approved at the discretion of the HOO. The objectives and mode of training must reflect the current duties of the instructor undertaking the refresher training.

Solo refresher training flights may be combined with the refresher training of another company flight instructor and dual refresher training flights must be done with a flight instructor holding a Grade 1 Training endorsement.

##### Remedial Training

Remedial training flights can be scheduled following a sub-standard performance during a company S&P Check or if an instructor fails a Flight Instructor Proficiency Check. A failure of either of these proficiency checks may indicate skills deficiencies in aircraft manipulative skills or instructional skills, or both.

The HOO is to determine if internal corrective action is required and to schedule remedial training as appropriate.

#### Command responsibility during IT&C flights

Prior to the conduct of IT&C flights:

1. The Checker conducting training or checking will be designated as PIC.
2. The PIC in conjunction with the Instructor under check will determine the management of real emergency situations.

#### Simulation of emergencies or malfunctions

The checker will adhere to the following guidelines prior to initiating a simulated aircraft emergency or malfunction:

1. During the pre-flight briefing the Checker will ensure it is clearly understood that an initiation of a simulated emergency or malfunction will be preceded by the word [***“Simulated”***].
2. It does not contradict any POH or AFM requirement.
3. Only one simulated emergency or malfunction will be initiated at any time
4. To simulate an engine failure the Checker will adopt any limitations or instructions described in the manufacturer’s handbook and if not in conflict with these, the company policies are:

* for single engine aircraft a smooth retardation of the throttle; or
* for multi-engine aircraft a smooth retardation of the [mixture]; or
* for multi-engine aircraft no simulated engine failure before gear retraction or VYSE.

# TRAINING MANAGEMENT SYSTEM MANUAL

## Part 141 & Part 142 Training Operations

### Purpose of this volume

This volume contains the Training Management System Manual as prescribed by regulation *142.340 (1) (s) (iii)* and provides for the management of Part 141 flight training the operator may also be authorised to conduct.

### Types of Training offered

The company conducts authorised Part 141 and Part 142 Flight Training for the grant of certain Part 61 qualifications. All training takes place at the company’s main base of operation using the facilities and resources described in section 1A5 of this Exposition.

#### Authorised Part 141 Flight Training

The company conducts the following authorised Part 141 Flight Training using aeroplanes and a company owned FSTD, for the grant of the following Part 61 qualifications:

* RPL (A)
* Non-integrated PPL (A)
* Non-integrated CPL (A)
* Night VFR (A)
* ME Class rating
* SE Class rating
* Flight instructor rating

##### Management and Conduct of authorised Part 141 Training

The company conducts authorised Part 141 Training on an ad hoc basis, as and when required by each individual student.

Students undertaking Part 141 Training may liaise with an appointed instructor who will assist in coordinating an appropriate ground and flight training schedule.

While certain types of Part 141 training offered by the company may take place on a regular basis for some students and appear like a full-time course, there is no intention on behalf of the company to offer full-time Part 141 training courses.

#### Authorised Part 142 Flight Training

The company currently conducts the following authorised Part 142 Flight Training using aeroplanes and a company owned FSTD, for the grant of the following Part 61 qualification:

* Integrated CPL (A) flight training course

#### Part 142 Flight Training - Course Outline

##### Overview

The company’s authorised Part 142 Integrated Flight Training course is an intensive program of training that is run as a full-time course and combines ground theory training integrated with practical flight training that is delivered in a structured way to maximise the training benefit.

##### Course objectives and outcomes

The desired course outcome is for a student to qualify for a Commercial Pilot Licence - Aeroplanes [CPL (A)] on a single engine piston powered aeroplane, with all the training being completed within a condensed period of time.

##### Training delivery

Relevant aspects of aeronautical knowledge training are delivered in advance of the corresponding practical flight training as a planned, integrated sequence as described by the CPL(A) training plan in appendix [x].

Practical training and theory training is usually scheduled for [Monday to Friday] each week for [xx] [weeks/months] over the duration of the course so that continuity and progress is assured with minimal retraining required.

The Training Management System (the ***TMS***), described in PART 4B, ensures effective integration, recording and identification of performance deviation and provides input into the quality management system of the company (see regulation *142.265(8)*).

NOTE: Instructors conducting integrated CPL (A) training shall hold the qualifications described in 1B2.2.2.

##### Assessment criteria and methods

The criteria to be assessed are as specified in the CASR Part 61 MOS and the assessment methods are as described in part 4B3 of this Exposition.

##### Course duration

As described by the CPL (A) training plan the company conducts [two] full-time courses per year and each course is scheduled to run for [xx] [weeks/months]. The courses includes [x] break/s of [xx] days duration to allow for the rest and relaxation of the course participants.

There is generally a course overlap with one course ending after the next course has commenced. This is designed to optimise the use of company resources such as facilities, aircraft and staff.

After the completion of the final course for the year there is approximately an [x] week break before the first course of the New Year commences to allow for the finalisation of any uncompleted training activities of an existing course before any new training commences.

##### Course dates

The first course of the year is nominally scheduled to start on the first Monday of [specify month] and the second course is nominally scheduled to start on the first Monday of [specify month]. Small variations may occur with these dates in order to accommodate public holidays or other major public events etc.

##### Enrolment procedure

Students are required to enrol in the course using Form 9B21 not later than [x months / weeks] prior to the course commencement, this being the enrolment closing date.

This lead-time is important as it allows the Company sufficient time to ensure appropriate resources are available for course commencement.

Students must meet any prerequisites specified for enrolment in a course of training.

##### Participant pre-requisites

The following pre-requisites must be met for a student’s enrolment to be confirmed in a Part 142 CPL (A) course:

1. Age: Evidence must be provided that the student will be at least [eighteen] years of age on the first day of the course.
2. Medical: Evidence must be provided that the student holds a valid CASA issued Class 1 Medical Certificate.
3. Education: Evidence that the student has a suitable education background that will allow them complete the aeronautical and flight training without difficulty. While there is no education standard specified in civil aviation legislation, it is recommended that applicants have finished at least Year [12] High School studies, however this is not mandatory.
4. Signed training agreement: The company must receive a signed training agreement to confirm enrolment and a place on the course. The agreement is self-explanatory, however it is important to note that:
5. if the student is not of legal age, a parent or legal guardian must sign the agreement; and
6. if the enrolling student is not the person responsible for making course payments, the person responsible for making those payments must also sign the agreement.

After the company receives evidence from a prospective student that all the above pre-requisites have been met, the Company will confirm their enrolment in writing and will also provide course joining instructions.

##### Course joining instructions

As part of the enrolment confirmation process, after an eligible enrolment has been received from the student, the company will send out course joining instructions at least [x] weeks prior to the course commencement date. The course joining instructions will cover the following matters:

1. Course outline and expected outcomes.
2. The course commencement date, location, start time on the first day and approximate graduation date.
3. Information about travel and accommodation, if relevant.
4. Information about scheduled breaks during the course and the management of absences.
5. Brief outlines about the course facilitators and the names of the staff members to contact should they require further information before and after commencement of the course.
6. Course completion standards
7. Participant requirements, which would cover such matters as:
8. Standards of behaviour and other expectations by the company of the student
9. Uniform requirements
10. Payment schedules
11. Attendance requirements etc.

##### Expectations of students

The company has the following expectations of students undertaking fulltime flying training:

1. Course attendance and absences:
2. All students are expected to be punctual and attend all scheduled ground and flying lessons.
3. Students shall take holidays during the scheduled course break periods.
4. Students are permitted a maximum of [xx] day’s sick leave during the course before they are considered to have broken integration with their enrolled course.
5. Any absence requests for reasons other than scheduled leave must be made in writing and given to the HOO, with a copy also given to the OPSO and the student’s instructor.
6. Where a student is absent for illness the HOO shall be responsible for coordinating the reintegration of the missed sequences. In the event a student is absent beyond [xx] days, it is possible that a student will no longer be considered to be enrolled in an integrated course of training and they shall be offered the option of:

* Having their future training managed under CASR Part 141; or
* Enrolling in the next integrated flight training course (under CASR Part 142) to be conducted by the company with recognition of the training already completed. In this situation, the procedures described in 4A3.2 (Recognition of Prior Learning), shall apply.

1. Except for the items listed below in 4A2.3.11, students are expected to provide the following items of uniform:

* At least three pilot style white shirts with double breasted button down pockets
* At least two pairs of dark navy blue [trousers/skirts/culottes]
* A suitable number of dark navy blue socks
* A pair of black shoes (non-sport style) with a rigid non-slip sole
* A pair of sunglasses.

1. Any time a student is attending company facilities for the purpose of undertaking training, they must wear the uniform items listed above.

##### Student equipment

Upon commencement of training the following equipment will be provided to students by the company:

1. Company branded epaulets
2. Company branded cap
3. Company branded name badge, embossed with the student’s name and the words “student”
4. Pilot headset
5. Carry bag for headset and other pilot equipment
6. Navigation:

* ruler
* protractor
* computer

1. Fuel drain
2. Pilot logbook
3. Book style licence holder
4. AIP - ERSA.
5. Other relevant AIP documents.
6. A USB memory drive with electronic versions of the following civil aviation legislation:
7. Civil Aviation Orders
8. Civil Aviation Regulations
9. Civil Aviation Safety Regulations
10. The following maps and charts:
11. VTCs for [enter the name of relevant locations]
12. VNCs for [enter the name of relevant locations]
13. WACs for [enter the name of relevant locations]
14. PCA.

#### Integrated CPL (A) course instructional design milestones

To ensure continued “integration” within a particular Part 142 CPL (A) integrated flight training course, the milestones listed below are to be contained within the instructional design of the CPL (A) course:

* Students are to pass the PPL flight test as an integral part of the training program leading to the issue of their CPL.
* Students shall complete the RPLA examination not earlier than [xx] weeks and not later than [xx] weeks.
* Students shall complete the PPL examination not earlier than [xx] weeks and not later than [xx] weeks.
* Students shall complete the CHUF examination not earlier than [xx] weeks and not later than [xx] weeks.
* Students shall complete the CSYA examination not earlier than [xx] weeks and not later than [xx] weeks.
* Students shall complete the CADA examination not earlier than [xx] weeks and not later than [xx] weeks.
* Students shall complete the CMET examination not earlier than [xx] weeks and not later than [xx] weeks.
* Students shall complete the CNAV examination not earlier than [xx] weeks and not later than [xx] weeks.
* Students shall complete the CFPA examination not earlier than [xx] weeks and not later than [xx] weeks.
* Students shall complete the CLAW examination not earlier than [xx] weeks and not later than [xx] weeks.
* Students shall not complete sequence [xxxxx] until competency [yy] has been demonstrated and recorded in the student record.
* Students shall not complete sequence [xxxxx] until competency [yy] has been demonstrated and recorded in the student record.
* Students shall not complete sequence [xxxxx] until competency [yy] has been demonstrated and recorded in the student record.
* Students shall not complete sequence [xxxxx] until competency [yy] has been demonstrated and recorded in the student record.

### Recognition of prior learning

#### Part 141 students transferring from another Part 141 FTO

If a student wishes to transfer from another Part 141 FTO, the HOO or Part 141 Senior Instructor will first conduct a flight assessment covering all elements where they have already been recognised as competent as per the students existing records.

The HOO or Part 141 Senior Instructor will prepare a training plan based on this assessment flight before the student receives training from [Sample Aviation].

#### Part 142 students transferring from another Part 142 FTO

Students who are transferring to [Sample Aviation] from another Part 142 FTO, where they have previously been enrolled in an Approved Part 142 Integrated CPL (A) training course, may continue to receive integrated Part 142 integrated flight training after an assessment by the HOO or Part 142 Senior Instructor. This assessment will be conducted on a case by case basis and may be influenced by any of the following:

1. Flight assessment
2. Record assessment
3. Gap analysis
4. Time interval from the cessation of previous training

The assessment may be conducted by using an appropriate formative assessment from [Sample Aviation]’s training record to integrate the student into the training program at the appropriate stage.

#### Transfer of student flight training records

If another Part 141 or Part 142 operator requests a copy of a student’s flight training records, it must be supplied within 7 days provided the student agrees and has provided written authority to do so.

### Aeronautical knowledge training courses

#### Overview of training course

Ground training is conducted by the Ground Instructor for the integrated CPL (A) courses.

Additionally, when the Part 142 theory training schedule allows, the Ground Instructor may be used to provide theory courses for students participating in training under Part 141. The company however is not in the position to guarantee this and will only do so when and if the Ground Instructor is available and there is sufficient demand for Part 141 theory training.

#### Ground Training for Part 141 students

Part 141 students will be required to self-study to gain the knowledge required to pass aeronautical knowledge examinations.

Instructors must ensure that students have passed their relevant aeronautical knowledge examinations prior to undertaking pre-flight tests.

#### Ground Training for Part 142 students

As part of the authorised Part 142 integrated training program for the issue of a CPL (A), the company conducts theory training which is integrated with the flying training.

### Ground Examinations

#### Types of Ground Examinations

The company manages two types of ground examinations:

1. Examinations that can be considered as “In-House” and are prepared and managed by the company for the purpose of assessing a student’s underpinning knowledge before certain important air exercises take place. Examples of these examinations are:
2. Pre Solo Air Legislation examinations
3. Pre Area-Solo Air Legislation examinations
4. Radio Telephone Operator examinations
5. Aircraft technical knowledge examinations.
6. Examinations that are managed through the CASA Pilot Examination Office (PEXO) and are conducted for the purpose assessing a student’s aeronautical knowledge and are required for the issue of a rating or licence.

#### Conduct of Ground examinations

##### CASA Approvals

The HOO and the Senior Instructors hold approvals from CASA to conduct PEXO exams.

Ground examinations will be conducted when required using the facilities in Building 2. The facilities are used on the basis that they meet minimum CASA specifications for the conduct of PEXO exams. If at any time it becomes apparent that they are lacking in any way, the HOO is to be advised immediately so that the deficiency can be rectified. Further information regarding the suitability of facilities can be found in the CASA Flight Crew Licensing manual - [CASA Flight Crew Licensing Manual.](https://www.casa.gov.au/manuals-and-forms/standard-page/flight-crew-licensing-procedures-manual)

##### Preparation of Examination Facility

Before conducting an exam, invigilating staff must always ensure that any learning materials that may assist students, such as poster, maps and personal electronic devices, are removed from the examination room.

While an exam is in progress, invigilators are to place a sign on the classroom door to remind other staff and students that an exam is in progress and to therefore keep distracting noises and conversations to a minimum.

##### Company induction the conduct of ground examinations

During the induction process, the HOO or Senior Instructor will ensure that new instructors are aware of how to use [Sample Aviation]’s ground examinations. Completion of the relevant section on Form 9B11 signifies this.

## The TMS and Quality Management practices

### Introduction

The Company employs a Training Management System (the ***TMS***) and Quality Management practices to manage all authorised Part 141 and Part 142 Flight Training activities.

### TMS description & purpose

The TMS outlines the matters which must be addressed for each training course conducted by the company and ensures regulatory obligations and client expectations, in terms of any authorised Part 142 and Part 141 Flight Training activities are being met.

This part of the Exposition describes the requirements of regulations *142.255*, *142.265(1) (b)* and *142.265(8)* of the CASR (quality management provisions described within the Part 142 Safety Management System requirements).

NOTE: The TMS comprises the components listed in this section and other procedures that are applicable to all flying training are described elsewhere in this Exposition.

### Syllabuses, Lesson Plans, Training & Assessment Plans

The syllabuses lesson plans, training plans and assessment plans, for each course of training are published in a separate Volume to this Exposition (VOLUME 10) and this section and are also available electronically on the company intranet.

Each Senior Instructor is responsible to the HOO for the preparation of respective course training plans, assessment plans, syllabuses and lesson plans in accordance with the processes described.

Only personnel with expertise in flight instruction, course design and management are to be assigned to the preparation of courseware.

#### Training Syllabuses

##### Syllabus documentation

For each approved course of Part 141 and Part 142 flight training, syllabus documentation includes:

1. A planning matrix - a syllabus design tool for mapping Part 61 MOS elements into individual flight lessons for training and assessment.
2. A syllabus introduction - providing general information, requirements and contingencies relating to the particular syllabus.
3. A flight training and theory examination summary - a list of flight training lessons and theory exams in planned sequence.
4. A lesson plan and training record for each flight - a single document providing a lesson overview, briefing topics, underpinning knowledge items, elements and performance criteria and a means for recording training and assessment outcomes.

NOTE: Syllabus documentation must be read in conjunction with CASR Parts 61 and 141, and the Part 61 Manual of Standards.

#### Training and assessment plans

#### Training plan

The training plan for each course is set out in the:

* Planning matrix
* Flight training and theory examination summary
* Syllabus introduction.

Each syllabus is planned to ensure students receive training in the units of competency mentioned in the Part 61 MOS for the licence, rating or endorsement in a structured manner.

The briefing and flight training hours represented in each syllabus are recommended training times, however in practice these may vary (for example due to student progress, continuity of training, weather conditions, aerodrome traffic etc.).

#### Assessment of student competence

Evidence of satisfactory knowledge is obtained through:

* Results of examinations
* Assessment of underpinning knowledge at pre-flight briefings
* Assessment of a student’s in-flight aircraft handling and decision makings skills.

The standards for skills are expressed in terms of performance criteria for each element of competency in syllabuses. For example, the evidence of competency in flying skills is obtained by assessing a student’s standard achieved against the standard required as detailed in the relevant training record on two or more occasions.

The flight training record is attached to the lesson plan. It includes the standard of performance needed to be demonstrated for each element of that lesson.

#### Competency grading scale – Performance Standards

[Sample Aviation] uses a numeric competency grading scale. The grading scale is applied during course development to represent proposed progress under the training plan and ensure certain items are assessed prior to significant milestones (such as the first solo flight). It then provides a benchmark against which a student’s actual progress may be monitored and recorded.

The grading scale is set out in the ‘performance standard’ table below:

|  |  |  |
| --- | --- | --- |
| Performance Standard | | |
| 3 | 2 | 1 |
| Has received training in the element, however is not able to consistently demonstrate competency to the standard required for qualification issue. | Demonstrates a developing level of proficiency, and is deemed safe to conduct solo practice under direct supervision. | Achieves competency to the standard required for qualification issue. |

**Performance standard 3** represents the introduction of the specified performance criteria via instructor demonstration, followed by guided student practice. The student demonstrates a basic level of ability.

**Performance standard 2** represents the ability to safely conduct a flight for the purposes of practising a sequence or sequences solo. For sequences where solo practice is not required or is not permitted, performance standard 2 is used to represent a developing level of proficiency.

NOTE: The word "safe" used in performance standard 2 means that the student may achieve the required standard on the majority, but not necessarily on all occasions.

The student must be able to recognise a situation where the desired outcome of a manoeuvre may be in doubt and take corrective action to recover.

**Performance standard 1** represents proficiency to the standard required for the issue of the qualification, and therefore constitutes a ‘competent’ assessment. Assessment should be based on the technique used by the student, as well as the ability to perform manoeuvres within the tolerances specified in schedule 8 of the PART 61 MOS. Sound judgement and decision making should be displayed.

NOTE: Technique involves smooth and accurate control application when adjusting power, attitude, trim and balance in a timely and coordinated fashion, whilst following correct procedures.

On some occasions, flight conditions (e.g., turbulence) may be such that even through the student’s technique is sound, the aeroplane may deviate outside specified tolerances for short periods. On these occasions the assessment of technique should be the determining factor.

#### Assessment of competency

A student may be deemed competent to conduct a solo flight, be recommended for a flight test or issued a qualification when the standard required is achieved on at least two occasions (each occasion being on a separate flight).

Pre-solo and end of course assessments have been planned on this basis.

End of course assessments take into account all of the units of competency mentioned in the Part 61 MOS for the licence, rating or endorsement.

#### Time to achieve competency

The accumulation of the planned hours specified in a syllabus does not necessarily guarantee achievement of all the required standards. The achievement of competency may vary dependent upon individual training and assessment outcomes.

Students may require flight time in excess of planned syllabus totals, or may achieve competency ahead of the documented schedule.

Where accelerated student learning occurs, such as during an ‘*integrated course of training*’, significant deviations from the planned syllabus durations are to be clearly notated in the student’s training records, including an approval by the HOO. An operator may require any such deviations to be first approved by the HOO, after considering any relevant Part 61 requirements.

For instructions regarding the management of underperforming students, refer to section 4B3.7.1 and 0.

NOTE: When adjustments to the planned syllabus hours are made, instructors and the HOO must ensure that the CASR Part 61 minimum aeronautical experience requirements are met.

##### Procedures when competency standards not met according to program

Each of the competency gates listed below shall be points in the course at which [Sample Aviation] ensures normal progress or progress within a standardised deviation. Where a student has not achieved a mandatory competency at the specified check point the instructor shall inform the HOO using a copy of the training record with appropriate comments and include a recommendation as to the most appropriate remedial tool for the particular case.

The HOO shall then determine the most appropriate intervention tool and make a note of this in student’s training record.

##### Integrated Training Competency Gates

|  |  |  |
| --- | --- | --- |
| Competency Gate | Check point | Remedial tools |
| First solo | [xx] hrs | xxxxxx |
| First training area solo | [xx] hrs | xxxxxx |
| BAK Exam | week [xx] | Tutoring, counselling, xxxxxxxx |
| Flying progress check *(based on RPL flight test)* | [xx] hrs | xxxxxx |
| PPL theory exam | week [xx] | Tutoring, counselling, xxxxxxxx |
| First solo NAVEX | [xx] hrs | xxxxxx |
| PPL flight test | [xx] hrs | xxxxxx |
| CPL theory exams complete | week [xx] | Tutoring, counselling, xxxxxxxx |
| Post PPL check *(includes DF check)* | [xx] hrs | xxxxxx |
| CPL flying progress check | [xx] hrs | xxxxxx |
| CPL flight test | [xx] hrs | xxxxxx |

#### Variations to the training and assessment plan

##### Lesson sequence

Where variations to the planned lesson sequence are permissible, these are noted in the syllabus introduction.

Any other lesson sequencing deviations or lesson content changes are to be made only with the prior approval of the HOO or the nominated Senior or supervising instructor. Approval for changes shall be in the form of a notation made in the training record by the HOO or the nominated Senior or supervising instructor.

#### Underperformance of students (non-integrated training)

If a student consistently fails to achieve competency as a result of a summative assessment, this must be investigated by the Senior Instructor to determine the cause. Investigation should include, but not be limited to:

* An analysis of the student’s flight training records
* Discussion with the relevant instructor and student.

The Senior Instructor will liaise with the HOO as required and decide on the remedial course of action. To determine the best options for the student involved some of the matters that should be considered are:

* Remedial training involving additional flights or simulator training with the student’s current instructor
* A change of instructor
* A more in-depth assessment conducted by the HOO or one of the Senior Instructors.

#### Using the syllabus documents

##### Planning matrix

It is not a requirement that a copy of the planning matrix be retained on a student’s training file.

##### Flight training and theory examination summary

A copy of the flight training and theory examination summary may be provided to each student at commencement of training. A copy should be retained on the student’s file.

##### Syllabus introduction

The syllabus introduction contains specific requirements to be met during training e.g., prior to first solo). It must be read in conjunction with the remainder of [Sample Aviation]’s Exposition.

##### Lesson plan and training record form

Training records are to be maintained by instructors for all students.

The lesson plan and training record form is to be completed immediately following the debriefing and retained on the student’s training file. The record will contain completed formative assessments when required. These assessments will contain a record of the student’s ‘achieved standard’ that fall short of the ‘*required standard*’. Instructors are to indicate any areas of deficiency and recommendations for the next flight in the comments area.

Instructions for the use of the lesson plan and training record form are summarised below.

###### Flight details

Enter the date, student, instructor and other flight details as prompted.

The flight number should normally be recorded as ‘1’, for example, the RPL stalling lesson is to be recorded as flight number ‘RPL (A) 5.**1**’.

If a lesson is repeated it is to be numbered sequentially, for example a repeated RPL stalling lesson would be assigned flight number ‘RPL (A) 5.**2**’.

###### Lesson overview

Refer to the overview for a summary of lesson content. For Part 61 MOS instructional elements, refer to the ‘flight training’ section of the form.

###### Pre-flight knowledge

Students are to be thoroughly briefed prior to each flight lesson. Pre-flight knowledge consists of the following components:

* Long briefings. Topics (briefing content should not necessarily be limited to these items (Instructors should refer to their briefing notes for full briefing content)
* Underpinning knowledge items, including those relating to HF & NTS (instructors should introduce, review or assess underpinning knowledge to a level of detail that is applicable to the stage of training. Some adjustments to suggested content may be necessary to meet the requirements and conditions during the particular flight
* A pre-flight briefing checklist for the lesson.

The instructor is to sign-off at the foot of the pre-flight knowledge section to confirm the pre-flight knowledge components have been carried out and the underpinning knowledge items addressed.

NOTE 1: Underpinning knowledge is assessed via oral questioning and also through in-house written examinations such as the Pre-Solo and Pre-Area Solo examinations.

NOTE 2: Transitioning operators may already have examinations which have been suitable in the past. These may continue to be utilised provided their content has been reviewed against the Part 61 MOS underpinning knowledge standards and amended as required.

#### Performance standards

The table containing the performance standard grading scale is included in each lesson plan and training record.

##### Flight training

The flight training section sets out the suggested flight time and Part 61 MOS elements and performance criteria (instructional elements) to be covered during the lesson.

Instructional elements appear in this section when:

* They are to be introduced or assessed during the lesson.
* Student practice is required for previously introduced or assessed elements which are not core to the lesson (for example the practice of a flapless approach and landing during the RPL (A) [xx] steep turns lesson). In this situation the performance standard required is the same as that on the previous occasion. The instructor should monitor the student as they perform the tasks to ensure the previous standard is maintained, providing guidance if required.

To ease the requirement for lengthy lesson plan and training record forms, instructional elements which have previously been introduced or assessed and which are core elements of a subsequent lesson, usually do not appear in the flight training section until they are to be assessed to a higher standard. The focus of the lesson is described in the lesson overview, and the instructor should continue to monitor the student as they perform the tasks to ensure the previous standard is maintained, providing guidance if required.

For example, during RPL (A) [x] *flapless and missed approaches*, instructors should continue to monitor the student against the elements required for the conduct of circuits outlined in the circuit introduction lesson RPL (A) [x]. These elements do not appear again until they are assessed in lesson RPL (A) [x]. If the student’s performance in one or more of these instructional elements regresses, this should be notated on the training record and revision training conducted.

The performance standards 3, 2 or 1, that appear in the ‘*performance standard required*’ column, represent target student progress under the training and assessment plan. They also indicate the following instructor and student actions:

|  |  |  |
| --- | --- | --- |
| Performance Standard | Instructor | Student |
| **3** | * Demonstrate * Direct * Monitor | * Observe * Perform tasks with guidance * Perform tasks with monitoring |
| **2** | * Assess | * Perform tasks |
| **1** | * Assess | * Perform tasks |

##### Procedure for making entries in a training record

Performance standard 3, 2 or 1 is to be entered in the ‘performance standard achieved’ column to represent the student’s actual performance during the flight. In the interests of reducing repetitive data entry by the instructor, if progress matches that in the ‘*performance standard required*’ column, no entry is necessary (i.e. a ‘nil entry’ indicates the standard achieved is the same as that required).

When making entries in the ‘*performance standard achieved*’ column:

* Enter the standard achieved (if different to that required).
* If the standard achieved is lower than that required, carry the relevant performance criteria over into the next lesson by writing them in the ‘consolidation and/or remedial training’ box of the subsequent lesson’s training record. The items are to be addressed during the next lesson.
* Performance criteria which were not able to be introduced during the lesson should be marked as ‘NI’ (not introduced). Enter the relevant performance criteria in the ‘consolidation and/or remedial training’ box of the training record for the next lesson. This will ensure these items are captured during future training.
* Performance criteria which were not able to be assessed should be marked as ‘NA’ (not assessed). Enter the relevant performance criteria in the ‘consolidation and/or remedial training’ box of the training record for the next lesson. This will ensure the items are captured for future assessment.
* If a student is progressing ahead of the syllabus schedule and assessments are conducted in advance (i.e. for performance criteria not included in the lesson plan and training record), record the assessed performance criteria and standard achieved on the ‘accelerated competency’ form. Attach this form to the lesson plan and training record for the lesson in which the early assessment was made.

NOTE: Competency must be demonstrated by the student on two separate flights.

In lesson plan and training record documents, the first assessment to a higher performance standard lists both the element and relevant performance criteria.

Only the element is listed for the second assessment; however the instructor must ensure the assessment is conducted against the same performance criteria.

##### Flight lesson debriefing

As soon as possible after the flight the instructor must thoroughly debrief the student. A debriefing checklist is provided in each lesson plan and training record.

The purpose of the post-flight debrief is to review the flight in relation to the students’ performance against the standards achieved or competencies on the lesson plan. In particular, the student needs to be made aware of:

* Aspects of their performance that meet the criteria.
* Aspects of their performance that need improvement or further training to achieve competency.

The debriefing should also identify items that need to be repeated or that will be introduced in the next lesson.

Immediately after the debriefing, the instructor must complete and file the flight training record. In the event that an immediate record cannot be made due to unforeseen circumstances a delay up to 7 days for its’ completion is permissible.

###### Comments and outcome

Instructor comments and recommendations for the next lesson should be entered into the ‘comments and outcome’ box.

###### Instructor and student sign-off

On completion of the lesson the instructor and student are to sign at the end of the form, as an acknowledgment that the student has been appropriately briefed, debriefed and the lesson was conducted in accordance with the training record.

The student’s signature is an acknowledgement of their agreement with the comments and recommendations for future training. The student is to be provided with a copy of the record IAW 4B5.1.4.

### Auditable System for Maintaining Records

The company internal audit system is described in 1A8.4. The audit process is to enable an understanding of the company’s compliance with the Expositions’ various components.

#### Reviewing flight training records

[Sample Aviation] adopts consistent procedures for the review of flight training records for all Part 141 & Part 142 flying training (see section 7 below).

#### Auditable System for Training Activities

The HOO or their delegate shall conduct an annual audit of the training activities. The audit shall use forms 9B2 and 9B3. The audit shall review at least the scope listed below:

1. Training is planned in a systematic manner in accordance with the Expositions’ requirements.
2. Procedures when competency standards are not met are followed
3. A review of relevant regulatory amendments is conducted including the Part 61 Manual of Standards
4. A review of updated relevant regulatory guidance material is conducted
5. The quality of flight training records, particularly detail where students fail to meet performance criteria standards and recommendations by instructors
6. If the lessons given conform to the sequence outlined in the syllabus and take into account previous recommendations
7. Recommendations on the need for corrective action, if the rate of achievement against syllabus hours indicated is consistently poor.

#### Quality Management - Continuous Improvement of Training Activities

At least once a year the HOO will review and analyse data gathered from the sources listed below to identify areas for improvement of training outcomes:

* The audit processes described in section 1A8.
* Course evaluation forms (Form 9B22)
* Flight test data
* Qualitative data from instructors
* Staff meetings (including feedback pertaining to facilities and processes)
* Safety management system including incidents and accidents.

#### Evaluating Training Outcomes

In addition to the continuous improvement procedures in section 4B4.3 (above), on completion of the commercial pilot licence flight test, the HOO or delegate instructor shall ask the student to complete the course evaluation Form 9B22.

The following principles must be followed during the evaluation process:

* Feedback of a safety critical nature shall be managed by the Safety Management System.
* Feedback of a general improvement nature shall be managed by section 4B4.3.
* Feedback that requires urgent attention shall be immediately brought to the attention of the HOO or Safety Manager and actioned appropriately.

#### Assessing Suitability of Facilities & Processes

The course evaluation form described in section 4B4.4 shall include feedback pertaining to facilities and processes.

#### Process for Recommending Changes

Company Form 9B17 - Suggestion for Continuous Improvement, is the preferred method of recommending change within the company.

### Student Administration

#### Student records

Student records consist of the below elements:

1. Course enrolment form (personal details and emergency contact information).
2. Examination results (copy of Knowledge deficiency reports).
3. Medical Certification.
4. Flight training records milestone achievements.
5. A photocopy of the student’s most recent licence.
6. A photocopy of the student’s ASIC.
7. Relevant forms as required by this Exposition (e.g., under performance).
8. Personal details such as date of birth, current address and contact details.

##### Storage and retention of training records

Flight training records for Part 141 and Part 142 training must be maintained separately in locked filing cabinets which must be accessible to Key Personnel, relevant instructors and Flight Examiners at all times.

The long term management and retention of student flight training records will be IAW the requirements of section 1A4 of this Exposition.

##### Updating training records after solo flights

On return from a solo training flight, the student and the authorising instructor are to debrief on the flight and make any relevant comments received from students on the flight training records. This debrief should not be cursory, but should go into sufficient depth so that the instructor is assured all exercise objectives were met.

##### Updating training records after a flight test

[Sample Aviation] Flight Examiners must, after conducting a flight test, make a comprehensive written report detailing the deficiencies that resulted in a fail assessment and enter comments into the flight training records. This may also involve a debrief of the students instructor or recommending instructor.

##### Provision of flight training records to students

The instructor will provide students with a copy of their flight training record after each flight. IAW regulation *142.360(1)*, a complete copy may also be provided upon request by the student the record relates to.

##### Transfer of student flight training records

If another Part 141 or Part 142 operator requests a copy of a student’s flight training records, it must be supplied by the HOO or their delegate within 7 days provided the student agrees and has provided written authority.

#### Student log books

All students must have an accurate and up-to-date log book whilst undertaking training.

When required, the flight instructor assigned to a student must check and certify the accuracy of entries in the student’s logbook. This is done by cross referencing the hours entered against the aeroplane flight log and the students’ training file.

#### Student familiarity with relevant Exposition volumes

All students undertaking flight training with the company are required to familiarise themselves with the relevant sections of the company operations as they relate to the activities that the student is undertaking.

The student may seek further clarity from their instructor and instructors are encouraged to take a student through pertinent sections from time to time.

The student agrees they will act IAW the Exposition requirements.

#### Protocols for relationships and behaviour with course participants

Effective and efficient training is dependent on the maintenance of harmonious and positive relationships. Accordingly, the following behavioural obligations apply to all company instructors and examiners:

1. Act with respect and courtesy
2. Maintain confidentiality
3. Avoid or disclose any conflicts of interest
4. Apply fairness and consistency.

Conflicts of personality must be referred to the HOO or the Senior Instructor responsible for the particular training.

### General Flight Training administration

#### Policy

This section applies to all flight training operations.

#### Authorisation of training flights

Before starting a training flight, both student and authorising instructor will sign Form 9B19.

##### Solo flights

For a solo flight, the authorising instructor will only sign the authorisation sheet (Form 9B18) when they have confirmed that the student meets the following requirements:

1. The student has an ARN
2. Has a current Medical Certificate
3. ELP as required
4. The student has completed all training and examinations as prescribed by the syllabus for the solo flight
5. The student flight training records indicate that they have achieved competency for the flight
6. For training for a PPL(A), or for a Night VFR rating (as applicable) the student has completed 2 hours of dual instrument time including 1-hour instrument flight time if the flight is a first solo cross-country or night flight
7. The student has been briefed on the objectives, conditions and limitations of the intended solo flight, including the task or route to be flown, number of circuits (if applicable), traffic and ATC considerations, and actions to be taken during an emergency
8. The student is clear on what they are be authorised to do while on their solo flight
9. The actual and forecast weather conditions including runway crosswind and last light limitations are suitable after considering the student’s previous competence in similar conditions
10. The daily inspection is complete and certified
11. The pre-flight inspection confirms the aeroplane has a valid MR and is serviceable
12. All instruments, navigation equipment and lighting are serviceable as required for the flight
13. The fuel and oil state is appropriate for the flight (refer para 2B4)
14. The student carries all appropriate inflight documentation IAW section 2A1.1.
15. The runway to be used by the student pilot is not less than 150% of the distance required by the AFM
16. For solo flights at night the student has been briefed on actions in the event of a failure of the runway lighting.

##### Supervision of solo flight

To supervise a solo flight, the authorising instructor must be:

* At the aerodrome of departure or flying within 15 NM of the departure aerodrome
* Contactable during the flight an electronic means.

###### Supervision of a first solo flight

During a first solo flight in the circuit, the authorising instructor should be on the apron or in a position to closely monitor the progress of the flight visually and have access to a VHF radio to monitor calls and be able to render assistance if necessary.

###### Supervision of solo NAVEXs

When a student is on a solo NAVEX, the authorising instructor must maintain awareness of the weather conditions en-route and at the destination aerodrome. The instructor must also maintain awareness of the student pilot’s ETA back at the company’s main base and must inform the HOO, Senior Instructor or supervising instructor if the student has not returned when the expected ETA time is exceeded by a significant time.

The Senior or supervising instructor rostered for that day must remain on duty until all company aircraft, either dual or solo, are safely on the ground and secured and all post flight administrative procedures have been completed.

#### Training Areas

##### Operations within training areas

All instructors and students conducting training activities other than navigation training exercises must conduct all training within the designated training area.

##### Description of training area

[Sample Aviation] uses a training area approximately [x] NM to the [south] of the aerodrome.

The training area vertical dimensions are from ground level up to [xxxx] ft AMSL. When viewed on a map, the training area is approximately symmetrical with the most southerly boundary being approximately [x] NM south of the northern boundary and the distance between the most easterly boundary and the most westerly boundary being approximately [x] NM.

The surface underlying the training area is mostly unpopulated with only a few buildings which are mainly farm houses and associated farming infrastructure. On this basis most areas within the boundaries of the training area are suitable for the conduct of operations down to 500 ft AGL, although care must still be taken to ensure that any training activities that involve operations below 1000 ft AGL (down to a minimum of 500 ft AGL) are done in such a way as to always maintain the minimum prescribed distances from buildings and persons and livestock on the ground.

The physical features which are useful in identifying the boundaries of the training area are:

* [List useful geographical and man-made features which will assist staff and students in identifying the training area boundaries].

NOTE: A training area map is located at appendix 9A1.

#### Aerobatics and spinning

Aerobatics and spinning by solo students is prohibited. However, dual spin training is included in the syllabus as an optional activity and may be conducted by an appropriately qualified instructor in an appropriate aircraft, to familiarise students with the characteristics of a spin and to introduce them to the basic spin recovery technique.

Any instructors who conduct spin familiarisation training must be authorised under Part 61 to conduct Spin Training.

NOTE: It is not the intention of the company to train for the grant of Part 61 qualifications in Spinning or Aerobatics.

#### Solo practice forced landings

The training area map (appendix 9A1) indicates the approved area to conduct solo practice forced landings.

When practicing forced landings, the PIC must not continue the approach below 500 ft above ground level (AGL) unless the approach is to an airfield runway.

During the briefing the student should be reminded that when practicing forced landings, they must keep the engine warm and to be ready to go around at any time and to have all checks required, to ensure a safe go-around no lower than 500 ft AGL.

#### Low flying training

[Sample Aviation] does not hold any authorisations to conduct low flying training. ll pilots must ensure they remain at least 500 feet AGL at all times.

#### Aerodrome suitability

Except in an emergency, aeroplanes operated by [Sample Aviation] will only be operated to or from an aerodrome that has been assessed as suitable by the HOO for the proposed flight training operations.

NOTE: In the situation where an aerodrome is not registered or certified, there must be a suitable reporting means through which to obtain up-to-date information about aerodrome availability and serviceability.

#### Company register of suitable non-certified aerodromes

Form 9B15 is to be used for compiling a company register of suitable non-certfied aerodromes that have been approved for use by the HOO.

Information listed in the register is advisory in nature. The Safety Manager and the HOO should be advised if an amendment is considered necessary for safety or operational reasons using Form 9B16.

NOTE: The PIC must obtain permission of the non-certified aerodrome operator and is responsible for determining that the area is suitable for the intended operation.

The HOO and pilots will refer to AC 91.02 - Guidelines for aeroplanes with a MTOW not exceeding 5,700 kgs - suitable places to take-off and land, to determine if the aerodrome is suitable for the conduct of flight training operations.

#### Standard navigation routes

All navigation training flights will be conducted IAW the syllabus for the relevant course of training.

The routes may be changed with prior permission of the HOO or Senior Instructor (refer to para. 4B3.7 for additional guidance). The HOO or Senior Instructor will ensure that revised routes will comply with the syllabus outcomes for the exercise.

#### Cross-country operations

All authorised Part 141 and Part 142 training flights beyond the training area shall be classified as cross-country flights. Before a student departs on a cross-country flight, the authorising instructor shall ensure that:

1. The planned route does not involve unnecessarily flying over inhospitable terrain.
2. Prohibited areas will be avoided, restricted areas will either be avoided or will have airways clearance available and danger areas will be avoided unless their activity does not constitute a hazard to the flight.
3. There are suitable alternate aerodromes available if required.
4. The quantity of fuel on board at start-up exceeds the minimum required derived from the company fuel policy requirements at 2B2 and the correct grades of fuel and oil are available at aerodromes if required.
5. All mandatory aircraft instrumentation, lighting, radio equipment and radio navigation equipment is serviceable.
6. Flight planning and notification is satisfactory, and the pilot has the appropriate maps, charts and documentation.
7. The flight can be conducted IAW the regulations and this Exposition.

#### Carriage of passengers on training flights

Unless expressly approved by the HOO, no passengers are to be carried on any training flight unless it is considered that the carriage of a passenger will provide a training benefit (e.g., another student back seating on a training flight).

Under no circumstances are passengers to be carried on a flight during on which it is planned to conduct:

* A simulated engine failure
* A system failure that affects the aeroplane’s performance or handling characteristics.
* Notwithstanding the general provisions of 4B6.6, no passengers are be carried on any flight where it is planned to operate below 1000 ft AGL as part of a training exercise, unless it is for the purpose of landing or taking off at an aerodrome approved for company operations.

#### Observance of last light limitations

Authorising instructors of solo training flights conducted late in the afternoon or evening must ensure that students are aware of last light and are able to complete the flight with an adequate margin.

A day solo cross-country flight will not be authorised if the ETA to home base is within [xx] minutes of last light. This margin will be increased if adverse weather conditions are likely to bring forward last light.

#### Simulation of instrument flight

When simulating instrument flight, instructors will use the company issued instrument flight hoods, which can be obtained from the Operations Officer in the Ops room.

#### Submission of flight plans by student pilots

Before the submission of flight plan details by a student, the authorising instructor must check the flight plan for accuracy.

All cross-country flights shall have a SARTIME that is to be held by CENSAR.

NOTE: The use of a flight note and the holding of company SAR should only be used if no other option exists.

#### Supervision of night flying operations

The HOO shall nominate and the Operations Officer shall roster, an authorised instructor to supervise night flying operations. The authorised instructor must be familiar with the alternate methods of activating the aerodrome lighting and ensure sufficient fuel is carried in the event of a failure of the aerodrome lighting system.

The instructor rostered to this role must be able to meet the requirements of section 1B2.5 - Supervising Instructors of this Exposition

The home base airport meets the requirements for airport lighting and ground facilities. The authorising instructor shall confirm there are no NOTAMs that reduce these levels. The HOO needs to specifically authorise any other airport for this purpose.

If an aeroplane is to be used for night flying, the authorising instructor will confirm there are no unserviceabilities that prohibit flight at night.

#### Procedures for night flying training

All night flights are conducted in accordance with any alternate aerodrome requirements for aerodrome lighting.

Instructors will ensure solo night circuit flights are conducted with sufficient fuel reserves to enable the supervising instructor to activate or deploy alternative or emergency runway lights.

Night flying operations shall be conducted IAW the night flying syllabus in VOLUME 10. Additionally, night circuit operations shall only be conducted:

* Within a radius of 3 NM of the aerodrome reference point and except for taking off or landing not less than 1000 ft and up to 1500 ft above aerodrome elevation.
* Night circuit operations shall not be conducted in weather conditions less than:
* a ceiling of at least 2000 ft above ground level as ascertained by the supervising instructor (*this is in excess of the minimum legislated requirements*).
* at least 10 kilometres visibility as ascertained by the supervising instructor (*this is in excess of the minimum legislated requirements*).

## Flight Tests And Flight Reviews

### Flight Tests

#### Flight test procedures

Before arranging a flight test the assigned instructor must check and the HOO or Senior Instructor must verify that the applicant meets the requirements to take the test. Following completion of this administrative aspect the HOO or Senior Instructor will certify that these requirements have been complied with:

* In the student’s flight training records
* On the applicable licence application/flight test form in the form of the certification required IAW with regulation *61.235*.

Before booking a flight test for a flight crew licence, the HOO or Senior Instructor must certify that all pre-test requirements stated on the flight test application form are completed.

#### Booking flight tests

The HOO or Senior Instructor will liaise with the Operations Officer to allocate and ensure:

* A company flight examiner is scheduled to do the test
* An appropriately equipped briefing room suitable for the test
* A suitable serviceable aeroplane with a means of simulating instrument flight
* The training records and log book of the applicant are up to date and include the certification mentioned above and are made available to the examiner
* Access to briefing materials and a means to carry out flight notification is available.

#### Procedure following failed flight test

If a flight test is failed, the HOO or Senior Instructor will carry out the procedure detailed in section 4C1.4.

The HOO will record all flight test results on Form 9B23.

#### Evaluation of training outcomes following flight tests

[Sample Aviation] adopts consistent procedures for the review of flight training records for all Part 141 & Part 142 flying training – see section 4B4.2.

### Flight Reviews

[Sample Aviation] conducts flight reviews in single and multi-engine aeroplanes.

The objective of the flight review is to ensure the holder of the rating is competent in each unit of competency of the Part 61 MOS for the licence or rating.

The flight review is intended to refresh the pilots knowledge and skills to ensure the pilot continues to maintain competency to exercise the privileges of the rating in an aircraft safely.

# SAFETY MANAGEMENT SYSTEM MANUAL

### Purpose

This Volume contains the Safety Management System manual as prescribed by regulation *142.340(1)(s)(iv)*.

### Company SMS Implementation Plan

The company has decided to include all company operations, personnel – including students, infrastructure plant and equipment within its SMS.

A gap analysis of the previous Part 141 system to the proposed Part 142 has been conducted and the following has been identified as necessary to enable compliance with CASR Part *142.260*.

#### Gap Analysis

The company has conducted a gap analysis of their pre-existing safety policy and systems to that required for Part 142 to determine which components and elements should be added or modified to meet contemporary SMS standards and regulatory requirements.

The checklist in appendix 9A6 was used to account for each component and their respective sub-elements. The checklist provides for a 'Yes' and 'No' response, in terms of the compliance of the existing system, to the SMS requirements. Remarks for partial compliance or deviations are made as well as actions required in order to meet the criteria. There is a column for annotating existing organisation documentation where the requirement is addressed.

### Project Plan

The project plan comprises the following components:

1. **Risk Management**

* Update the companies risk register to include all proposed new activities and aircraft.

1. **Risk Assurance**

* Develop Safety Performance Indicators for all risks identified.

1. **Communications**

* Enhance the existing communications plan to include all new positions proposed for the company.

1. **SMS Training**

* Enhance the existing training plan and train staff in new roles such as:
* Operations Officer
* Senior Instructors.

1. **Safety Manager**

* Identify a suitable employee for the position, arrange for a suitable standby person
* Arrange and ensure training is delivered for these two persons.

1. **Documentation**

* Create new documentation to be developed for CASA
* Deliver Exposition amendment for approval.

### Implementation plan milestones

The implementation plan of the new SMS will build on existing techniques and understanding. It is envisaged that this will take 9 months with the following milestones.

#### Months 1 to 3

* Train substantive Safety Manager and standby Safety Manager
* Complete Risk Management.

#### Months 4 to 6

* Develop communications plan
* Complete risk assurance, develop SPI's.

#### Months 7 to 9

* Finalise Exposition VOLUME 5 (SMS Manual) and submit to CASA.

NOTE: When the SMS Manual which forms VOLUME 5 of this Exposition has been approved by CASA, the checklist at appendix 9A6 should be removed from this Exposition.

# DANGEROUS GOODS MANUAL

### Purpose

This Volume contains the Dangerous Goods Manual as prescribed by regulation *142.340(1)(s)(ii)*.

#### Company Dangerous Goods Policy

Dangerous goods are not to be carried on company operated aeroplanes other than certain items as permitted IAW *CASR 92.030*. Briefly, this legislation enables small quantities of items, normally classified as dangerous, to be carried by a pilot and includes personal items that may be carried by such as:

1. toilet articles and aerosols;
2. safety matches or lighter, or
3. battery operated items such as torches or mobile phones

Should pilots need to carry any item considered dangerous other than that stated above, they are required to bring this to the attention of the Senior Instructor and if necessary the HOO to discuss the nature of the item and its size/quantity prior to a flight.

# FATIGUE MANAGEMENT MANUAL

## Appendix 6 - Part 141 & Part 142 Flight Training Activities

### Overview

This document is designed to ensure that [Sample Aviation] meets its obligatory requirements in ensuring Key Personnel, Flight Instructors, Flight Examiners and students manage fatigue risk. The responsibility for overall management of fatigue is shared between [Sample Aviation] management, which impose tasking for employees and students and those individuals themselves who should consider programmed activities with their individual rest and sleep periods prior to engaging in flight training.

[Sample Aviation] only provides training as authorised under CASR Part 141 and 142 and will use the limits described within this document to manage all activities. Employees and students are reminded that any limitation contained within this document that is different to the legislation, replaces the legislative limit. No off duty or break period will be less than the prescribed legislative amount and no duty or flight limit will be more than the prescribed legislative amount.

[Sample Aviation] does not utilise Positioning, Reassignment, alternate Home Base, Standby, late night operations, Delayed Reporting or Split Duty periods during the creation of rosters - All instructors and Flight Examiners live locally. No part time instructors, shared by other organisations, are employed however in between CASR Part 142 course intakes staff numbers may be reduced for a short period of time. This is by mutual arrangement with the relevant instructors and they are considered to be full time instructors otherwise.

### Terminology & Meanings

| Term | Meanings |
| --- | --- |
| **ACCESS** | no restriction on, or impediment to, a flight crew member’s (FCM) immediate and actual use of a necessity |
| **ACCLIMATISED TIME** | the local time at the location where an FCM is acclimatised |
| **ADAPTATION PERIOD** | a continuous off-duty period for an FCM to become acclimatised to a particular location |
| **ADEQUATE SUSTENANCE** | food and drink (including clean drinking water) in quantities sufficient to reasonably sustain a person in the person’s circumstances |
| **BED** | for suitable sleeping accommodation, includes at least 1 pillow, clean bed linen, and bed covering appropriate for the temperature of the accommodation |
| **CONSECUTIVE** | a continuous, unbroken, period of time for the duration of the hours or days mentioned |
| **CUMULATIVE DUTY** | the progressive sum of duty periods |
| **CUMULATIVE FLIGHT TIME** | the progressive sum of flight time, excluding flight time accrued during recreational private operations |
| **DAY** | the period between local midnight at home base and the subsequent local midnight at home base |
| **DUTY** | any task that a person who is employed as an FCM is required to carry out associated with the business of an AOC holder |
| **DUTY PERIOD** | a period of time which starts when an FCM is required by an AOC holder to report for duty, and ends when the FCM is free of all duties |
| **FATIGUE** | a physiological state of reduced alertness or capability to perform mental or physical tasks, which:   * 1. may impair the ability of the FCM to safely operate an aircraft   2. is caused by 1 or more of the following:   + the FCM’s lack of sleep   + the FCM’s extended wakefulness   + the FCM’s circadian phase at any relevant time   + the FCM’s workload of mental activities, or physical activities at any relevant time |
| **FLIGHT CREW MEMBER (FCM)** | Means a licensed crew member charged with duties essential to the operation of an aircraft during flight time. For [Sample Aviation], this term is synonymous with Flight Instructor, Flight Examiner or student |
| **FLIGHT DUTY PERIOD (FDP)** | a period of time which:   * 1. starts when a person is required by an AOC holder to report for a duty period in which one or more flights as an FCM are undertaken; and   2. ends not less than 15 minutes after the end of the person’s final flight as an FCM |
| **FLIGHT TIME** | the total time from the moment at which the aircraft first moves under its own power for the purpose of taking-off, until the moment at which it comes to rest after landing |
| **LATE NIGHT OPERATION** | an operation where an FDP includes more than 30 minutes between the hours of 2300 and 0530 local time at the location where the FCM is acclimatised |
| **LOCAL NIGHT** | a period of eight consecutive hours which includes the hours between 2200 and 0500 local time |
| **OFF-DUTY PERIOD (ODP)** | a period of time during which an FCM is free of all duties and standby associated with their employment |
| **RECREATIONAL PRIVATE OPERATION** | flying conducted by an FCM in a personal capacity, and at the FCM’s leisure. A flight conducted by an FCM as a private operation is not a recreational private operation if it is conducted for, or on behalf of, an entity (regardless of whether or not the entity is an AOC holder) |
| **REPORTING TIME** | the time assigned to an FCM to report for an FDP |
| **ROSTER** | a list made available to an FCM by a The HOO through the Operations Officer setting out the times when the FCM is assigned to undertake duties or standby |
| **SLEEP OPPORTUNITY** | a period of time during an off-duty period when an FCM is not meeting the reasonable requirements of bodily functioning, such as eating, drinking, toileting, washing, dressing; and has access to suitable sleeping accommodation without, under normal circumstances, being interrupted by any requirement of [Sample Aviation].  **Note**: When an FCM is interrupted during sleep opportunity, this may affect the FCM’s fitness for duty before the commencement of, or during, the next FDP. |
| **SUITABLE SLEEPING ACCOMMODATION** | accommodation not within an aircraft, consisting of facilities conducive to sleep, including the following:   * 1. a comfortable self-contained room or compartment   2. a single occupancy, at the discretion of the FCM   3. clean, tidy and hygienic facilities   4. a bed that is comfortable, flat and horizontal, allowing the occupant to sleep on their stomach, back or either side   5. minimum noise levels (including low occurrence of random noise)   6. facilities to control light, temperature and ventilation   7. access to adequate sustenance   For the purposes of employment with [Sample Aviation], it is the employees and students obligation to ensure these standards are met. |
| **UNFORESEEN OPERATIONAL CIRCUMSTANCE** | an unplanned exceptional event that becomes evident after the commencement of the FDP (i.e. un-forecast weather, equipment malfunction, or air traffic delay). |

### Flight Crew Member Fatigue Management

#### Fatigue Management Policy

Fatigue – a physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member’s alertness and ability to safely operate an aircraft or perform safety related duties.

[Sample Aviation] is committed to safe working practices and safe operations. In terms of flight crew member (FCM) fatigue management we are committed to:

1. Ensuring that our FCMs are aware of the accrual, and identification of (and need to address) fatigue that can arise from work and personal factors.
2. Embracing an open and fair reporting culture where we can learn and improve our fatigue management understanding and procedures.
3. Fatigue management rostering and practices that avoid disruptive roster patterns and minimise the risks associated with flight crew fatigue, with the goal of having no flight operations on which crew are fatigue impaired to the extent that safety is impacted.

[Sample Aviation] will not require an FCM to operate an aircraft if the FCM is suffering from fatigue or considering the circumstances of the flight to be undertaken, is likely to suffer from fatigue, which may so impair the FCM’s performance that the safety of the operation may be affected.

This policy and the fatigue management procedures noted in this manual apply to, and are expected to be followed by, (as applicable):

* All flight crew members (FCMs) employed or engaged by [Sample Aviation] regardless of their employment status.
* All staff, (including management), whose work may cause (or impact on) the fatigue of FCM’s, (e.g., with their involvement in FCM rostering, extensions, reporting and continual improvement).

This fatigue management policy and procedures section will be formally reviewed:

* Once a year on the anniversary of commencement of operations to this supplement.
* Upon identification of a fatigue related issue associated with this section including extensions.
* If operations change significantly enough to affect rostering, training or aircraft types.
* If there are any amendments to applicable legislation.

The formal review will be conducted by the HOO (or delegated person) and stored as a record associated with flight and duty times. The review is to ensure continual improvement of the system and its ongoing applicability to current operations.

#### Flight Time Limitations and Fatigue Management

[Sample Aviation] complies with CAO 48.1 Instrument 2013 Appendix 6 for Part 141 and Part 142 Flying Training Activities.

### Responsibilities

#### Responsibilities

NOTE: All employees of [Sample Aviation] share in the responsibility for a safe workplace. Should anyone observe behaviour in an individual, including students that could contribute to a fatigue risk, then they are obliged to draw attention to it

The HOO has responsibility for implementing and managing the fatigue management system on behalf of [Sample Aviation]. On a day to day basis some duties associated with this overall responsibility are carried out by the SM or Operations Officer. The HOO’s duties include:

1. Reporting specified events to CASA.
2. Ensuring roster limits are designed and promulgated in accordance with (IAW) the provisions of this Volume.

Authorising extensions in unforeseen operational circumstances (IAW section 0)

1. ).
2. Conduct an annual formal review and other reviews as required by the Fatigue Management Policies and Procedures (IAW section 7A3.1 – Fatigue Management Policy).

##### Safety Manager Duties

1. Maintaining a reporting system for fatigue occurrences.
2. Ensuring roster records are maintained, (including suitable accommodation register).
3. Ensuring a record of all FCM flight and duty times are maintained.
4. Ensuring all FCMs and relevant staff (including rostering staff) are trained in accordance with section 7A6.1 - Fatigue Management Training.
5. Ensuring all FCMs are aware of the fatigue management system, its limits and procedures and their responsibilities.
6. Conducting Fatigue Hazard Identification in accordance with section 0

##### Operations Officer Duties

1. Ensuring FCMs are contacted only in accordance with the communication protocol.
2. Backing up the rostering and recording computer system and ensuring records (including electronic files) are maintained and kept accessible for 10 years refer section 7A4.1.4 - Communication Protocol).
3. Liaise between the FCM and the HOO should the Operations Officer receive notification regarding an intended extension from the FCM.
4. Under the broad direction of the HOO prepare a roster for a 14 day period IAW section 0 - Roster design.

##### FCM Responsibilities

[Sample Aviation] recognises that many factors are outside the control of the individual and unforeseen circumstances will arise from time to time that will affect the individual’s ability to manage their sleep opportunities and fatigue. However, FCMs have a legal responsibility to appropriately manage fatigue factors (and fitness for duty generally) that are reasonably within their control and notify the operator if they believe they are not fit for duty.

[Sample Aviation] expects the following from its flight crew members in respect of fatigue management. In accordance with CAO 48.1 subsection 16, you must:

1. Take advantage of sleep and rest opportunities provided to achieve required restorative sleep or rest in order to be sufficiently alert for subsequent flight duties. If this sleep or rest is not reasonably obtained, then you are required to draw attention to this with their supervisor.
2. Monitor your fatigue state and advise the HOO. Safety Manager or Operations Officer via the communications protocol (refer section 7A4.1.4 - Communication Protocol) as soon as possible once you believe that you might not be available or could have an unacceptable fatigue risk level (it is recommended that the Alertness Consideration Table (Form ACTab) (refer section 0) be used to assist in making this decision) at the commencement of your rostered flight duty period (FDP) or at any time during an FDP.
3. Work towards a detailed understanding of all the underlying causes and effects of fatigue on alertness that is described in company training and try to gain the highest assessment mark possible to demonstrate that understanding.
4. Complete a Fatigue Occurrence Report (Form OR) (refer section 7D1) when you believe that fatigue has led to a reduction in safety margins or would have led to a reduction in safety margins had some additional mitigating action not been taken.
5. Accurately record flight and duty times (refer Form 9B12).
6. Notify the Operations Officer via the communications protocol as soon as it becomes apparent that flight and duty time limits might be exceeded (e.g., due to unforeseen operational circumstances).
7. Advise the Operations Officer and ensure the time flown is recorded if flying (other than purely recreational flying) is conducted in duty free periods.
8. If you become aware of any errors in rosters, or the possibility of exceeding cumulative limits bring these to the attention of the Operations Officer via the communications protocol as soon as possible.
9. Adhere to the communications protocol (refer section 7A4.1.4 - Communication Protocol).
10. Be aware of obligations relating to extensions and reassignments, including when to refuse, consideration of alertness and authorisation requirements.
11. Notify the HOO of changes to your personnel situation, if you believe that, it might impact on your ability to meet the operator’s fatigue risk management policies and obligations. This could include factors such as secondary employment, living a long distance from base, travelling a long distance to report for duty. Once notified this will be noted as a continuing state of affairs for the FCM and does not require repetition (unless circumstances change).

[Sample Aviation] encourages the following from its FCMs in respect of fatigue management. You should:

1. Proactively provide suggestions for improvements in the way [Sample Aviation] and the Alertness Consideration Table (Form ACTab) (refer section 0).

It is recommended that the Alertness Consideration Table (Form ACTab) to assist in discussing their level of fatigue, the form will not be used as a means to apply any pressure FCM’s to continue a FDP or undertake an extension.

##### Communication Protocol

All communications between [Sample Aviation] and an FCM during an ODP or that could impact on the FCM’s prior sleep opportunity must be in accordance with the following communication protocol:

An FCM will only be contacted during their sleep opportunity if there is to be a delay in FDP commencement time and then preferably by SMS. A voice message may be left if the message is deemed too complex for SMS.

* the FCM should ensure that their mobile is on ‘silent’ during sleep opportunity periods to, as best as possible, ensure uninterrupted restorative sleep
* the FCM must check their SMS messages and reply to any SMS or voice message notifying the FCM of a delay, before leaving the location of the prior sleep opportunity
* an SMS sent and shown as delivered or leaving a voice message is deemed to be notification however the FCM shall still reply to the SMS before leaving the location of the prior sleep opportunity to confirm they understand the message
* the FCM will check with the Operations Officer for messages prior to leaving home
* the timing and content of SMS messages (and phone calls) regarding delays will be logged in the rostering system.

All required or urgent communications between an FCM and [Sample Aviation] during an ODP or FDP will be in accordance with the following communication protocol:

* in the first instance the FCM will contact the Operations Officer as soon as practicable.
* if no answer is received, the FCM will leave a detailed voice message including their name **and** send an SMS message notifying that a voice message has been left
* if the message relates to an extension request, the FCM must ensure they receive a response approving the extension prior to extending.

All required or urgent communications between the HOO (or delegated person) and an FCM during an FDP will be in accordance with the following communication protocol:

* in the first instance the HOO or Operations Officer will contact the FCM on the mobile phone number supplied by the FCM
* if no answer is received, the HOO or Operations Officer will leave a detailed voice message and send an SMS message notifying that a voice message has been left
* if the message relates to an extension request, the HOO will gather sufficient information, which may be provided by the Operations Officer, about the nature of the extension and the level of fatigue of the FCM to ensure they can adequately assess whether safety will be impacted before approving the extension.

##### Duty Time, FDP, Flight Time and Cumulative Limits

A duty is any task that a person who is employed by [Sample Aviation] as a FCM is required to carry out associated with the business of [Sample Aviation] and a ‘duty period’ is a period of time which starts when a FCM is required by [Sample Aviation] to report for duty, and ends when the FCM is free of all duties. A flight duty period (FDP) is a period of time which starts when a FCM is required by [Sample Aviation] to report for a duty period in which one or more flights as a FCM are undertaken and ends not less than 30 minutes after the end of the FCM’s final flight.

Any period of duty that precedes a flight such as a period of simulator flying, management duties, administrative tasks, maintenance tasks etc., will be included in the FDP unless it is separated from the flight by a period of time sufficient for a prior sleep opportunity (refer section 7A4.1.7 - Prior Sleep Opportunity).

Any period of duty after an FDP (after the final flight) and before the ODP such as positioning, management tasks etc., will be taken into account when determining the minimum ODP.

These are the maximum FDP and flight time (FT) limits:

|  |  |  |
| --- | --- | --- |
| **Local Time at the start of FDP** | **Maximum FDP (hours)** | **Maximum Flight Time (hours)** |
| 0500 - 0659 | 9 | 7 |
| 0700 - 0759 | 10 | 7 |
| 0800 – 1059 | 10 | 7 |
| 1100 – 1359 | 10 | 7  **NOTE**:  Limits described that are different from legislation are to indicate [Sample Aviation]’s method of managing risk and are not mandatory. |
| 1400 – 2259 | 9 | 7 |
| 2300 – 0459 | No operations permitted | |

Table FD1 – Maximum FDP and FT

|  |  |  |
| --- | --- | --- |
| Local Time at the start of FDP | Maximum FDP (hours) | Maximum Flight Time (hours) |
| 0500 - 0659 | 8 | 6 |
| 0700 - 0759 | 9 | 6 |
| 0800 – 1059 | 9 | 6 |
| 1100 – 1359 | 9 | 6 |
| 1400 – 2259 | 8 | 6 |
| 2300 – 0459 | No operations permitted | |

Table FD2 – Maximum FDP and FT For Grade 3 Instructors with less than 50 hours instruction

|  |  |  |
| --- | --- | --- |
| **Local Time at the start of FDP** | **Maximum FDP (hours)** | **Maximum Flight Time (hours)** |
| 3 or more continuous circuit training flights | Reduce all maximum FDP limits by 1 hour | Reduce all maximum FT limits by 1 hour |
| 3 or more continuous circuit training flights – Grade 3 instructor with less than 50 hours instruction | Reduce all maximum FDP limits by 1 hour | Reduce all maximum FT limits by 1 hour |
| 2 or more instrument flying training flights | Reduce all maximum FDP limits by 1 hour | Reduce all maximum FT limits by 1 hour |
| Any simulator flight is conducted on the day (as instructor or pilot) | N/A | Flight time limit is reduced by simulator flight time for that day |

Table FD3 – Maximum FDP and FT limit Modifiers

The following limits will apply (refer also to late night operations [LNO] limits - *Section 1B2.5.9*):

|  |  |
| --- | --- |
| **Period** | **Flight Time Limit (must not exceed)** |
| 28 Consecutive Days | 100 hours |
| 365 Consecutive Days | 1000 hours |
| **Period - projected to end of assigned FDP or standby** | **Limits** |
| Any consecutive 168 hours (7 Days) | Maximum 60 hours duty |
| Any consecutive 336 hours (14 Days) | Maximum 100 hours duty |
| Any consecutive 168 hours (7 Days) | Minimum of 36 consecutive hours off-duty that must include at least 2 local nights |
| 28 Days | Must have had at least 7 days off-duty in the 28 consecutive days before commencing the FDP or standby |
| 84 Days | Must have had at least 24 days off-duty in the 84 consecutive days before commencing the FDP or standby |

Table CL – Cumulative Limits on Flight and Duty times.

##### Access to Sustenance

Where an FDP is to exceed 5 hours the Operations Officer will ensure there is a programmed break or breaks to ensure access to adequate sustenance at least every 5 hours. FCM’s are expected to bring their own food to the airport. A fridge is provided specifically for food/ beverage storage to facilitate access to adequate sustenance. Cold water is provided all year around by [Sample Aviation] and kept in the fridge.

##### Prior Sleep Opportunity

When rostered for a FDP the FCM will have at least 8 consecutive hours sleep opportunity in the preceding 12 hours before the commencement of their duty. Unless a unique arrangement has been agreed between the FCM and the Head of Flight Operations and recorded, the sleep opportunity provided before a FDP will not include the 2 hours immediately before the commencement of a FDP (refer section 7A7 - Flight and Duty Records).

If for any reason a FCM does not have the required sleep opportunity period they cannot commence the assigned FDP until it is achieved. They must inform the HOO or Operations Officer as soon as it is known that the sleep opportunity period cannot be achieved.

##### Off Duty Periods

Off-duty periods will include the minimum sleep opportunities (refer section 7A4.1.7 - Prior Sleep Opportunity) and maintain cumulative limits (refer section 7A4.1.5 - Duty Time, FDP, Flight Time and Cumulative Limits). The requirement to achieve the minimum prior sleep opportunity may determine the minimum ODP particularly in locations where there is a long commute to the suitable sleeping accommodation.

The minimum ODPs (prior to consideration of meeting requirements of minimum sleep opportunities or cumulative limits) are calculated as per **Chart OD** below. The minimum ODPs worked out using this chart will be increased if the period does not allow for 8 hours prior sleep opportunity in suitable sleeping accommodation.

The following table (**Table OS**) should be used to establish whether the ODP is sufficient to achieve the minimum prior sleep opportunity of 8 hours:

|  |  |  |
| --- | --- | --- |
| **Requirement** | **Time Required** | **ODP** |
| Commute time to Suitable Sleeping Accommodation | \_\_\_\_ hours : minutes | Determine minimum ODP using the procedure depicted in *Chart OD* and enter in box below: |
| Sufficient time for the reasonable requirements of bodily functioning such as eating, drinking, toileting, washing and dressing | 90 minutes |
| Prior sleep opportunity | 8 hours |
| Commute time from Suitable Sleeping Home to airport | \_\_\_\_ hours : minutes |
| Total Time | \_\_\_\_\_ hours : minutes | \_\_\_\_\_ hours |
| **Actual Minimum ODP** (higher of two totals in the row above) | \_\_\_\_\_\_\_ hours: minutes |  |

Table OS – Calculating ODP to include minimum prior sleep opportunity



Chart OD – Calculating minimum ODPs

The following longer-term limits also apply:

* Must have had at least 7 days off-duty in the 28 consecutive days before commencing the FDP or standby, and
* Must have had at least 24 days off-duty in the 84 consecutive days before commencing the FDP or standby.

#### Reporting

##### Fatigue occurrence reporting

[Sample Aviation]’s hazard reporting system includes fatigue occurrence reporting. If any of the following occur a Fatigue Occurrence Report (Form OR) (refer section 7D1) must be submitted to the Safety Manager:

When a FCM has not commenced an FDP or an FDP has not been completed, due entirely or in part to fatigue. This includes when the FDP is completed but only after some additional mitigating action such as reducing the workload of the duty, creating the opportunity for a nap, rotating the duty with another instructor etc.

Following an FDP, if the FCM believes, upon reflection, that the level of fatigue they or other crew members were suffering meant adequate safety margins had not been maintained throughout the flight(s).

When the FCM notices something in the operating environment for example vibration or excessive temperatures that are likely to impact on their alertness to such an extent that safety margins could be reduced to unsatisfactory levels.

When an incident or event has occurred to which fatigue could have been a contributing safety factor. Additionally, an incident report form (Form 9B16) will be submitted with the fatigue details completed including the FCM sleep history for the previous 72 hours. The incident report form (with fatigue related issues) and/or the fatigue occurrence report will be stored as part of the Flight and Duty Records or if confidential, stored appropriately by the Safety Manager.

##### Extensions reporting

All extensions or exceedances to FDPs or flight time limits require an Q1. How alert are you feeling?

Question 1 involves the FCM rating their current alertness (ideally close to their report time) using one of the seven options on the alertness scale. The result falls into one of three bands of risk – Low, Moderate, or High.

If High Risk, the FCM must consider discussing this with other employees or the HOO (or delegated person) and may need to address the risk through applying previously defined risk control measures, such as extended rest periods or task rotation. If a decision is made to continue with the duty, proceed to Question 2.

Q2. Have you had adequate sleep?

Question 2 involves the FCM accruing points based on their sleep in the prior 24 hours, 48 hours, and hours wake at the end of the duty. The points sum to produce a final score, which is categorised in terms of risk as Low, Moderate, or High.

NOTE:

48 hours is used in this table, because the table focuses almost entirely on acute or transient fatigue and the assumption is that the FCM was well rested prior to this point.

If the FCM has a longer period of disrupted or restricted sleep then they should consider that the cumulative fatigue associated with this, will increase the fatigue risk.

An increased cumulative fatigue will increase the risk associated with subsequent, shorter than required, sleep periods identified in the table and FCMs should put more weight on any symptoms (response to question 1) and take a more conservative approach to any heightened risk identified by using this table.

If the result is High Risk, the FCM must consider discussing this with other employees or the HOO (or delegated person) and may need to address the risk through applying previously defined risk control measures, such as extended rest periods or task rotation. If a decision is made to continue with the duty, proceed to Question 3.

Q3. What time does the duty occur?

Question 3 involves the FCM classifying their duty based on the time of day that the duty occurs. The result falls into one of three bands of risk – Low, Moderate, or High.

They then continue to Question 4.

Q4. What level of operational risk is associated with the duty?

Question 4 involves the FCM classifying the level of operational risk associated with the duty.

It is understood that the accumulation of fatigue will eventually diminish performance and increase error rate, to the point where the FCM becomes ‘fatigue impaired’, or simply too tired for the job intended. Aviation systems should be able to tolerate some human error and diminished performance capability, but very often task demands can increase, due to unforeseen circumstances. Consequently, what was previously acceptable in terms of an acceptable performance/error level, now becomes unacceptable.

Fatigue risk interacts with other areas of human performance, such as workload and task complexity and all of these risks need to be considered and if necessary, addressed.

For fatigue risk, FCMs should consider what factors are associated with the tasks allocated to them prior to presenting as fit for duty. This is because it has been well researched that reduced alertness (or the accumulation of fatigue) impacts on ‘real world skills’. FCMs, other employees and the HOO (or delegated person) should consider fatigue risks that may be present in conjunction with other risks, such as the type of task being undertaken, the nature of the airspace, weather considerations, airport demands and aircraft serviceability.

Furthermore, all should recognise that tasks that involve cognitive performance (e.g., decision making, memory capacity) and threat and error management can potentially be poorly measured or mismanaged by a FCM who is fatigued.

Using ACT, the FCM continues to the final step, in order to assist their determination of whether they may have adequate alertness to undertake the duty.

Determine the fatigue risk level and what may need to be considered when determining whether to undertake this duty

Based on the results for Questions 1-4, the FCM can use the table provided to determine whether a fatigue risk may be present during this duty. Together with measured levels of alertness, FCMs can begin discussing how to manage possible risks with the HOO (or delegated person) and subsequently develop an effective risk management plan.

Extension Report (Form ER) (refer section 0) to be filled out and provided to the Safety Manager and Operations Officer. There should be sufficient detail to establish what happened and what the circumstances were that led to the extension or exceedance.

All extension reports will be reported to CASA as soon as practicable but in any case within 14 calendar days of occurring. The HOO, will scan and email the completed report Q1. How alert are you feeling?

Question 1 involves the FCM rating their current alertness (ideally close to their report time) using one of the seven options on the alertness scale. The result falls into one of three bands of risk – Low, Moderate, or High.

If High Risk, the FCM must consider discussing this with other employees or the HOO (or delegated person) and may need to address the risk through applying previously defined risk control measures, such as extended rest periods or task rotation. If a decision is made to continue with the duty, proceed to Question 2.

Q2. Have you had adequate sleep?

Question 2 involves the FCM accruing points based on their sleep in the prior 24 hours, 48 hours, and hours wake at the end of the duty. The points sum to produce a final score, which is categorised in terms of risk as Low, Moderate, or High.

NOTE:

48 hours is used in this table, because the table focuses almost entirely on acute or transient fatigue and the assumption is that the FCM was well rested prior to this point.

If the FCM has a longer period of disrupted or restricted sleep then they should consider that the cumulative fatigue associated with this, will increase the fatigue risk.

An increased cumulative fatigue will increase the risk associated with subsequent, shorter than required, sleep periods identified in the table and FCMs should put more weight on any symptoms (response to question 1) and take a more conservative approach to any heightened risk identified by using this table.

If the result is High Risk, the FCM must consider discussing this with other employees or the HOO (or delegated person) and may need to address the risk through applying previously defined risk control measures, such as extended rest periods or task rotation. If a decision is made to continue with the duty, proceed to Question 3.

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Fatigue risk interacts with other areas of human performance, such as workload and task complexity and all of these risks need to be considered and if necessary, addressed.

For fatigue risk, FCMs should consider what factors are associated with the tasks allocated to them prior to presenting as fit for duty. This is because it has been well researched that reduced alertness (or the accumulation of fatigue) impacts on ‘real world skills’. FCMs, other employees and the HOO (or delegated person) should consider fatigue risks that may be present in conjunction with other risks, such as the type of task being undertaken, the nature of the airspace, weather considerations, airport demands and aircraft serviceability.

Furthermore, all should recognise that tasks that involve cognitive performance (e.g., decision making, memory capacity) and threat and error management can potentially be poorly measured or mismanaged by a FCM who is fatigued.

Using ACT, the FCM continues to the final step, in order to assist their determination of whether they may have adequate alertness to undertake the duty.

Determine the fatigue risk level and what may need to be considered when determining whether to undertake this duty

Based on the results for Questions 1-4, the FCM can use the table provided to determine whether a fatigue risk may be present during this duty. Together with measured levels of alertness, FCMs can begin discussing how to manage possible risks with the HOO (or delegated person) and subsequently develop an effective risk management plan.

Extension Report (Form ER) (refer section 0) to the local [CASA](http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_91624) office, referencing the FOI assigned to oversight the AOC.

##### Roster design

The Operations Officer will design a roster utilising the following information:

* Previous accumulated flight time accrued for FCM’s by referring to Form 9B12.
* The limits as prescribed for either the type of operation or FCM as contained within this volume.
* The available duty time for the booking of Part 141 training activities or the programmed time for Part 142 activities.

The HOO will provide information to the Operations Officer as to any notified leave.

The HOO will liaise with the Operations Officer in rostering activities that require instructors to have qualifications in advance of the minimum.

Roster publication will take place fortnightly on the Friday prior to the new period. The Operations Officer will promulgate the roster on an XL printout that defines the FCM against the daily activities. This roster will also identify the aircraft and student. The roster can be changed at short notice due to factors such as sick leave, previous unforeseen extensions or aircraft unserviceability.

### Accommodation

A FCMs home or residence is taken to be suitable accommodation (resting or sleeping).

### Training

#### Fatigue Management Training

The Company’s Fatigue management training is achieved by completing course IT4 of the company’s Internal Training and Checking System.

The training includes fatigue knowledge and [Sample Aviation]’s specific fatigue management processes and procedures training.

All [Sample Aviation] staff will complete specific fatigue management processes and procedures training before commencing authorisation, flying or rostering activities with the company.

All staff will complete fatigue knowledge training as soon as possible after they commence employment with [Sample Aviation] and may be delayed if necessary but in any case no longer than 6 months from when they commenced employment.

Before commencing in the position, the HOO will be familiar with the relevant sections of the Exposition, in particular sections 7A3.1 - Fatigue Management Policy, 7A3.2 - Flight Time Limitations and Fatigue Management, 0.

and PART 7C - Rostering in accordance with flight and duty time policy.

The elements of training that relate to the management of specific fatigue risk, that is, when that training forms a part of the risk management plan in the hazard and risk register, will be completed before the FCM is permitted to conduct the specific operations concerned.

At the completion of each training course each FCM or staff member must successfully complete an assessment and thereby satisfy the Safety Manager that he or she has sufficient fatigue knowledge, and understanding of [Sample Aviation]’s specific fatigue management processes and procedures to meet their obligations under the companies fatigue risk management policies, limits and procedures. A pass mark is 80%, with any errors discussed with the student and corrected by the facilitator. Any mark below 80% will require re-training.

All training is to be contained within [Sample Aviation]’s HF/NTS syllabus.

#### Facilitation of Fatigue Training

Training will be facilitated by the Safety Manager who has completed a minimum of the following:

* Participated as a trainee in the [Sample Aviation] fatigue training course and received an assessment of 90% or higher (with correction to 100% knowledge)
* Facilitated an entire fatigue training course under the close supervision of the HOO who will have met the standard required to facilitate the fatigue training course (the HOO will be present during course delivery and provide feedback).

#### Records of Fatigue Training

The training and assessment records as well as records of facilitator qualification will form part of the fatigue management records and be kept for a minimum of 10 years.

Records of training and assessment should be copied and placed in each FCM’s file.

#### Fatigue knowledge training

There are three main subject areas which form the substance of the fatigue knowledge training program (fatigue, sleep and countermeasures) listed in sections 1 to 3 of the fatigue training syllabus.

#### Company specific procedures training

The training for company specific procedures includes all topics as listed in section 4 of the fatigue training syllabus.

#### Recurrent fatigue training

The CEO, HOO, each FCM and the Operations Officer will have recurrent training, both knowledge and company specific procedures, at intervals of no longer than 3 years. This training will be provided by the Safety Manager

The recurrent training syllabus will revise previous fatigue topics (fatigue, sleep and countermeasures) as well as revision of company specific fatigue topics, especially any Exposition changes that have been promulgated solely by internal communication channels. This revision will be covered with a simple question and answer format (questions will be noted in the F& D records).

The recurrent training syllabus will predominantly include knowledge and understanding captured in the fatigue hazard section and include de-identified scenarios from the reporting systems to both expand on FCM knowledge and to raise awareness of company specific hazards and mitigations.

At the completion of each training course each FCM or staff member must successfully complete an assessment and thereby satisfy the HOO that he or she has sufficient fatigue knowledge, and understanding of [Sample Aviation]’s specific fatigue management processes and procedures to meet their obligations under [Sample Aviation]’s fatigue risk management policies, limits and procedures. A pass mark is 80%, and will be corrected to 100% with the student. Any mark below 80% will require re-training.

#### Fatigue Hazard Identification

As [Sample Aviation] is committed to safe working practices and procedures, we will undertake fatigue hazard identification and management, to ensure that FCM’s can safely operate an aircraft or perform safety related duties whilst minimising any fatigue risk.

The fatigue hazard identification follows through three phases and will be an ongoing process. It will be required to determine prescriptive limits that suit [[Sample Aviation]’s] operations and circumstances (which will not in any case exceed appendix 6 limits). Any proposed operations will be subject to the fatigue hazard identification process before FCM’s will be permitted to conduct the operation. The process may also define other controls that can be used to minimise fatigue risks.

[Sample Aviation] acknowledges the FCM’s expertise in the operations they conduct, and will register and monitor any fatigue problems that is brought to the attention of the Safety Manager.

The Safety Manager will undertake the following hazard identification and risk management phases:

##### Initial phase (Hazard Identification)

The Safety Manager will identify fatigue hazards that could potentially cause harm to the health and safety of people or damage to plant and equipment. This person will work with FCMs and other staff to identify fatigue hazards that may occur within the following situations:

* Work tasks & how performed (e.g., rostering practices, types of training flights).
* Physical work environment (e.g., hot weather conditions).
* Use of equipment, material (e.g., smaller (C150) versus larger (C172) aircraft).
* Work design and management (e.g., low level flying or limits for newly qualified instructors).

[Sample Aviation] may use a number of methods to assist in the process of identifying fatigue hazards and these may include one or more of the following:

* FCM’s input from their experience of particular types of training sorties.
* Any fatigue problems brought to the attention of the HOO or Safety Manager.
* Information from Flight and Duty records, including fatigue reports, extension reports and any reported exceedances.
* Brainstorming/consulting with colleagues/discussion.
* Formal review of standards, procedures and systems (including observations).
* Staff surveys or questionnaires.
* External sources (such as industry specific knowledge sources and industry groups).
* Details from past external audits/safety assessments.

[Sample Aviation] will take action to minimise or eliminate fatigue risk as low as reasonably practicable. Information gathered through this phase and the following two phases will be used to populate **Table FR**.

Column 1 in **Table FR** details the hazards identified by the above steps. Any existing controls (such as legislation) will be entered into the table (column 2).

Further risk management controls (especially limit adjustment) to manage the risk ‘***as low as reasonably practicable***’ will be found in column 3. The information in column 3 will then prescribe the limits found in section 7A4.1.5 - Duty Time, FDP, Flight Time and Cumulative Limits.

To ensure monitoring and evaluation of the risk management procedures, a responsible person will be assigned for each entry and any further policy or practice considerations will be entered into column 4.

In column 5, the HOO will sign each line acknowledging that risk is as low as reasonably practicable.

The major outcome of this initial phase is to identify known or likely hazards and recommend the maximum flight and duty limits prescribed and any other mitigations required.

This phase will also occur when there are significant operational changes including those affecting rostering, the introduction of new aircraft types, new operational areas, new training methods or the introduction of new technology.

##### Incident phase

The Safety Manager will analyse reports received through the incident and/or fatigue occurrence or extension reporting systems for root causes (the why of a situation?).

The results of this analysis may add newly identified fatigue hazards or amend existing fatigue risk mitigation.

These results must be entered into **Table FR** (and may have a reference linking them back to the specific report).

(Refer sections 7A4.2.1 - Fatigue occurrence reporting, 7A4.2.2 - Extensions reporting, 7B1 - Extensions and section 1C2 - Company SMS Implementation Plan).

##### Annual Review phase

Where the fatigue management approach (including hazard identification and risk mitigation) is reviewed and amended where necessary. Refer to section 7A3.1 - Fatigue Management Policy.

The HOO will call for and chair a meeting between the Safety Manager and Operations Officer all FCM’s including Flight Examiners every 12 months (at a minimum) and will discuss:

* A summary of fatigue reports including specific mention of more significant reports and all hazards identified and mitigation actions since the last review
* Fatigue Risk Management controls – general review of adequacy
* Review all limits (as defined in section 7A4.1.5) as set initially - review adequacy
* F & D Reports – review procedures and improvements that could be made
* Communication Protocols – Improvements
* Hazard Identification process – review adequacy.
* The HOO will ensure any suggested action points determined from this meeting are recorded on Form 9B17 for consideration by the Safety Manager.

Records from the Fatigue Hazard Identification Phases and associated reviews will be kept with the Flight and Duty Records (refer section 7A7 - Flight and Duty Records).

The table and analysis form part of the Flight and Duty Records.

| **Identified Fatigue Hazard (date recorded)** | **Existing Controls incl. limits** | **Additional Risk Management incl. limit adjustment** | **Responsible Person and Policies and Practice Considerations** | **HOO Signature and Date acknowledging acceptance of risk** |
| --- | --- | --- | --- | --- |
| An FDP involving [XXXX] operations that commences after midday and is longer than 9 hours consistently leads to unacceptable levels of fatigue  xx/xx/2015 | Existing Limits:   * Between 1100 – 1359: Max FDP 10 hours, and Max flight time 7 hours; * Between 1400-2259: Max FDP 9 hours, and Max flight time 7 hours   Reporting fatigued  Fatigue training | For all FDPs commencing between 1100 - 1359; the maximum FDP is reduced to 9 hours (**Note:** was already a maximum of 9 after 1400). | HOO responsible for conducting a 6 month trial of the new limit. FCMs encouraged to report if fatigued. Trial ends on xx/xx/2015 |  |
| OAT greater than 36oC has coincided with increased fatigue reports on FDPs involving extended operations below 500 feet AO  xx/xx/2015 | No existing limit  Reporting fatigued  Fatigue training | For FDPs that involve flying in forecast or actual maximum OAT greater than 36oC, the maximum flight time for the FDP is reduced to 6 hours | HOO responsible for conducting a 12 month trial of the new limit. Trial ends on xx/xx/2015 |  |

Table FR – Fatigue Risk Register

### Flight and Duty Records

Flight and Duty Records include all details relevant to the rostering and fatigue management system and specifically include:

* Rosters planned and achieved
* Fatigue Occurrence Reports on the Fatigue Occurrence Report (Form OR) (refer section 7D1).
* Incident Reports that involve fatigue
* Analysis or reports, actions and conclusion stemming from fatigue related investigations
* Extension/exceedance reports
* Notifications from FCM or student of unavailability due to fatigue (if not resulting in a Fatigue Occurrence Report)
* The results of annual review of the fatigue management system
* The results of Fatigue Hazard Identification and Mitigation reviews
* Training and Assessment Records relating to the Fatigue Management System
* Completed alertness consideration tables
* Any other unique arrangements (e.g., prior sleep opportunity arrangement used as an example in section 7A4.1.7).

All Flight and Duty Records (including the rostering and recording system) will be backed up at least weekly by the Operations Officer and records (including electronic records) shall be kept for 10 years. Backups and archived electronic records will be stored off site at the home of the HOO to mitigate loss risk.

## Conditions and processes for extensions to limitations

### Extensions

An FDP or flight time extension will only be authorised in unforeseen operational circumstances where other possible solutions to operational issues are unavailable.

Only the HOO can authorise an extension to an FDP or flight time limit. To do so the HOO will consider:

* Increased operational risks including:
* Impacts from increased sectors and/or workloads
* Impact on the FCM’s duty expectations
* Environmental factors including weather and temperature
* Aircraft serviceability including MEL items (such as autopilot unserviceability).
* Potential for ‘get-home-itis’ or some other, non-essential factor to be motivating the FCM to request the extension
* Availability of assigning alternate FCMs
* Possibility of sortie cancellation or modification
* Any patterns of extension
* Future rostering or planning implications of the extension
* Opportunities for duty rest.

An FDP can only be extended if:

The FCM considers themselves fit for the extended FDP. They should undertake an alertness consideration review as per the

* Alertness Consideration Table (Form ACTab) (refer section 0) and agree to the extension via the communication protocol

NOTE: Where possible the FCM should discuss their fatigue level with a third party, who knows about the signs and symptoms of fatigue, before reaching a decision on their fitness for the extension

* The FCM has had sufficient time to consider their fatigue levels and agree to the extension
* The decision to extend is made and agreed prior to the last flight of the FDP
* The FDP is extended by no more than 1 hour
* The flight time is extended by no more than 30 minutes
* Cumulative flight or duty limits are not exceeded.

All decisions to extend must have been made prior to becoming airborne on the last flight of the FDP. No FCM will become airborne without an extension, knowing they cannot complete the flight, as planned, within the maximum FDP limit.

If unforeseen operational circumstances arise after take-off on the final flight of an FDP; and those circumstances would cause an FCM to exceed any flight and duty time limit then, the FCM can continue to the planned destination or alternate at their discretion. In these circumstances, if limits are exceeded, it is called an exceedance and must be reported in the same manner as an extension.

An extension to an FDP that results in the FCM finishing an FDP after 2330 is not considered an LNO.

Extensions and exceedances require an Q1. How alert are you feeling?

Question 1 involves the FCM rating their current alertness (ideally close to their report time) using one of the seven options on the alertness scale. The result falls into one of three bands of risk – Low, Moderate, or High.

If High Risk, the FCM must consider discussing this with other employees or the HOO (or delegated person) and may need to address the risk through applying previously defined risk control measures, such as extended rest periods or task rotation. If a decision is made to continue with the duty, proceed to Question 2.

Q2. Have you had adequate sleep?

Question 2 involves the FCM accruing points based on their sleep in the prior 24 hours, 48 hours, and hours wake at the end of the duty. The points sum to produce a final score, which is categorised in terms of risk as Low, Moderate, or High.

NOTE:

48 hours is used in this table, because the table focuses almost entirely on acute or transient fatigue and the assumption is that the FCM was well rested prior to this point.

If the FCM has a longer period of disrupted or restricted sleep then they should consider that the cumulative fatigue associated with this, will increase the fatigue risk.

An increased cumulative fatigue will increase the risk associated with subsequent, shorter than required, sleep periods identified in the table and FCMs should put more weight on any symptoms (response to question 1) and take a more conservative approach to any heightened risk identified by using this table.

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Q3. What time does the duty occur?

Question 3 involves the FCM classifying their duty based on the time of day that the duty occurs. The result falls into one of three bands of risk – Low, Moderate, or High.

They then continue to Question 4.

Q4. What level of operational risk is associated with the duty?

Question 4 involves the FCM classifying the level of operational risk associated with the duty.

It is understood that the accumulation of fatigue will eventually diminish performance and increase error rate, to the point where the FCM becomes ‘fatigue impaired’, or simply too tired for the job intended. Aviation systems should be able to tolerate some human error and diminished performance capability, but very often task demands can increase, due to unforeseen circumstances. Consequently, what was previously acceptable in terms of an acceptable performance/error level, now becomes unacceptable.

Fatigue risk interacts with other areas of human performance, such as workload and task complexity and all of these risks need to be considered and if necessary, addressed.

For fatigue risk, FCMs should consider what factors are associated with the tasks allocated to them prior to presenting as fit for duty. This is because it has been well researched that reduced alertness (or the accumulation of fatigue) impacts on ‘real world skills’. FCMs, other employees and the HOO (or delegated person) should consider fatigue risks that may be present in conjunction with other risks, such as the type of task being undertaken, the nature of the airspace, weather considerations, airport demands and aircraft serviceability.

Furthermore, all should recognise that tasks that involve cognitive performance (e.g., decision making, memory capacity) and threat and error management can potentially be poorly measured or mismanaged by a FCM who is fatigued.

Using ACT, the FCM continues to the final step, in order to assist their determination of whether they may have adequate alertness to undertake the duty.

Determine the fatigue risk level and what may need to be considered when determining whether to undertake this duty

Based on the results for Questions 1-4, the FCM can use the table provided to determine whether a fatigue risk may be present during this duty. Together with measured levels of alertness, FCMs can begin discussing how to manage possible risks with the HOO (or delegated person) and subsequently develop an effective risk management plan.

Extension Report (Form ER) (refer section 0) to be completed in accordance with the reporting provisions in section 7A4.2.1 - Fatigue occurrence reporting (including submission to CASA), and must also be recorded in the hazard identification and mitigation system (refer also section 7A6.7 - Fatigue Hazard Identification).

The report will also form part of the flight and duty records.

Extensions will be reviewed by the HOO as part of [Sample Aviation]’s continuous improvement system within the companies Safety Management System (refer also section 7A6.7 - Fatigue Hazard Identification) and the analysis will be stored as part of the flight and duty records.

## Rostering in accordance with flight and duty time policy

The HOO is responsible for the roster. The Operations Officer has the duty of preparing and publishing it. The roster will be planned on a 28 day basis and published 7 days before the beginning of the roster period. The roster will be amended and republished as quickly as possible if any changes are made. Any FCM affected by the changes will be notified in accordance with the communication protocol.

## Fatigue Management System Forms

### Fatigue Occurrence Report (Form OR)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name:** | **If you wish the contents of this form to remain confidential please tick here** | | | | | | | | | | | | | |
| **Position:** | | | **ID Number:** | | | | | **Date of birth** | | | | **HOME BASE** | |
| **THIS FORM IS BEING COMPLETED IN RELATION TO FATIGUE ASSOCIATED WITH: (TICK ONE)** | | | | | | | | | | | | | | |
|  A lodged incident report |  An FDP extension | | | |  A non-reported safety event | | | | |  A general concern regarding fatigue | | | | |
| **when did the event occur?** | Date (DD/MM/YY):\_\_\_/\_\_\_/\_\_\_ | | | | | Time *(local or utc?)*:*\_\_\_\_\_:*\_\_\_\_\_ | | | | | How long had you been on duty? *\_\_\_\_\_\_\_\_*hours *\_\_\_\_\_\_\_*mins | | | |
| **what were you doing at the time of the event?** |  At home | |  Driving to work | | |  In flight | |  Driving home | | |  Positioning | | |  Other\_\_\_\_\_\_\_\_ |
| **if relevant, on what flight did the event occur?** | Flight No. \_\_\_\_\_\_\_\_\_\_\_ | | | | | Route:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | A/C type | | | Event sector:\_\_\_\_\_\_\_\_\_ |
| **Fatigue details (complete pto if required)** | | | | | | | | | | | | | | |
| ***title*** | | | | | | | | | | | | | | |
| description | | | | | | | | | | | | | | |
| cause | | | | | | | | | | | | | | |
| action & results | | | | | | | | | | | | | | |
| suggestions | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | |
| **Contributory Factors**  Tick all factors that contributed to the event/your general concern | | | | | | | **Commute** | | | | | **Sleep History** | | |
| * Commute * Deep night * Delay(s) * Health * Home Issues * Home rest * Hotel rest * Insufficient rostered rest time * Early to late transition * Late to early transition | | * Early start time * Late finish time * Long duty day * Long-term fatigue * Positioning * Roster disruption * Illness/Medication * Don’t know * Other (please add details above) | | | | | Duration of commute from home to home base;  *\_\_\_\_\_*HRS *\_\_\_\_\_* MIN  Duration of commute on days off to home base (if living in alternative accommodation during the duty block)  *\_\_\_\_\_*HRS *\_\_\_\_\_* MIN | | | | | For the 72 hours prior to the reported event, record the start and finish times for all sleep periods (including naps):   |  |  |  | | --- | --- | --- | |  | Date | Time  (Local or UTC?) | | Start | / / | : | | Finish | / / | : | | Start | / / | : | | Finish | / / | : | | Start | / / | : | | Finish | / / | : | | Start | / / | : | | Finish | / / | : | | Start | / / | : | | Finish | / / | : | | | |
| Tick all physical and cognitive signs of fatigue that were apparent in the 2 hours leading up to the event and any counter-measures used | | | | | | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PHYSICAL SIGNS** | | | **COGNITIVE SIGNS** | | | **countermeasures** | | | |
| * No physical signs were noted * Fidgeting * Rubbing eyes * Yawning * Frequent blinking * Staring blankly * Long blinks * Difficulty keeping eyes open * Head nodding * Other:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | * No cognitive signs were noted * Impaired attention * Impaired memory * Negative mood * Reduced communication * Impaired problem solving * Increased risk taking * Impaired situational awareness * Other:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | * No countermeasures were used * Advised colleague of fatigue risk * Coordinated workload * Increased communication * Caffeine * Food & Drink * Napping * Other:\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
| How alert did you feel immediately prior to the event (tick one): | * **1** | * **2** | | * **3** | * **4** | | * **5** | * **6** | * **7** |
| Fully alert, wide awake | Very lively, somewhat responsive, but not at peak | | OK, somewhat fresh | A little tired, less than fresh | | Moderately tired, let down | Extremely tired, very difficult to concentrate | Completely exhausted |

### Alertness Consideration Table (Form ACTab)

|  |  |  |
| --- | --- | --- |
| 1. **How alert are you feeling? (rate just prior to start of duty)** | | **RISK RESULT** ➀ |
| 1 | Fully alert, wide awake | **Low** |
| 2 | Very lively, responsive, but not at peak |
| 3 | Okay, somewhat fresh |
| 4 | A little tired, less than fresh | **Moderate** |
| 5 | Moderately tired, let down |
| 6 | Extremely tired, very difficult to concentrate | **High** |
| 7 | Completely exhausted, unable to function effectively |
| **if ‘HIgh risk’ is indicated consider RISK CONTROLS, such as napping, task rotation or advising the operator you are not fit for Duty.** | | |

|  |  |  |  |
| --- | --- | --- | --- |
| 1. **Have you had adequate sleep?** | | | **Points** |
| **i) At start of duty how much sleep will you have had in last 24 hrs? (this is value ‘x’)**  **x = \_\_\_\_\_\_hrs ------->** x: ≤ 3h 4h 5h 6+h  Points: 12 8 4 0 | | **Enter points in box**  **------>** |  |
| **ii) At start of duty how much sleep will you have had in last 48 hrs? (this is value ‘y’)**  **y = \_\_\_\_\_\_hrs ------->**  y: ≤ 8h 9h 10h 11h 12h 13+h  Points: 10 8 6 4 2 0 | | **Enter points in box**  **------>** |  |
| **iii) At end of planned duty how many hours will you have been awake, minus any time allocated for a rest period at suitable sleeping accommodation, or in-flight crew rest facility when part of an augmented crew? (this is value ‘z’) z = \_\_\_\_\_\_hrs** | |  | |
| **iv) If y < z, subtract hours of sleep obtained in last 48 hours (y) from hours awake (z). Convert the resulting figure to points (1 hour = 1 point).**  **Enter points in box ------>** | | |  |
| **ADD POINTS ABOVE TO DETERMINE YOUR SCORE ------->** | | |  |
| **Score** | **RISK RESULT** ➁ | | |
| **0-4** | Low | | |
| **5-8** | Moderate | | |
| **9+** | High | | |
| **if ‘HIgh risk’ is indicated consider RISK CONTROLS, such as napping, task rotation or advising the operator you are not fit for duty.** | | | |

|  |  |
| --- | --- |
| 1. **What time does the duty occur?** | **RISK RESULT** ➂ |
| All hours of the duty occurs between 0800-2200 | **Low** |
| Other | **Moderate** |
| Part of the duty occurs between 0200-0600 | **High** |

|  |  |
| --- | --- |
| 1. **What level of generic risk is associated with the duty?**   (Consider route, airports, airspace, level of crew experience, the aircraft features and serviceability and the weather conditions). | **RISK RESULT** ➃ |
| **Description** |
| All considerations rated low risk | **Low** |
| At least one consideration rated moderate risk | **Moderate** |
| At least one consideration rated high risk | **High** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. **Based on the results for ➀-➃ use the table below to determine what you may need to consider when determining whether to undertake this duty.** | | | | | |
| **RISK RESULTS** | **Example** | | | | **ALERTNESS CONSIDERATIONS** |
| ➀ | ➁ | ➂ | ➃ |
| High risk response to Q1 or Q2 |  |  |  |  | **High risk**: Measure level of alertness using objective and subjective methods, discuss with your supervisor why your alertness level may not be sufficient for this duty and consider a rostering alternative to manage the risk (e.g., augmented crew, longer rest periods). |
| All Moderate with at least 1 High |  |  |  |  |
| Any combination  of Low, Mod or High |  |  |  |  | **Moderate risk**: Measure level of alertness using objective and subjective methods, discuss with your supervisor whether your alertness level is suitable for this duty and consider the use of additional mitigation strategies (e.g., napping, task rotation). |
| 2 Low, 2 High |  |  |  |  |
| All Moderate |  |  |  |  |
| Any combination of Low or Moderate |  |  |  |  | **Low Risk**: Measure level of alertness using objective and subjective methods, discuss with your supervisor whether your alertness level is suitable for this duty and consider beneficial fatigue risk controls for this duty (e.g., caffeine use, nutrition). |
| 3 Low and 1 High |  |  |  |  |
| All Low |  |  |  |  |

#### Instructions for using the ACTab prior to a duty

Q1. How alert are you feeling?

Question 1 involves the FCM rating their current alertness (ideally close to their report time) using one of the seven options on the alertness scale. The result falls into one of three bands of risk – Low, Moderate, or High.

If High Risk, the FCM must consider discussing this with other employees or the HOO (or delegated person) and may need to address the risk through applying previously defined risk control measures, such as extended rest periods or task rotation. If a decision is made to continue with the duty, proceed to Question 2.

Q2. Have you had adequate sleep?

Question 2 involves the FCM accruing points based on their sleep in the prior 24 hours, 48 hours, and hours wake at the end of the duty. The points sum to produce a final score, which is categorised in terms of risk as Low, Moderate, or High.

NOTE:

48 hours is used in this table, because the table focuses almost entirely on acute or transient fatigue and the assumption is that the FCM was well rested prior to this point.

If the FCM has a longer period of disrupted or restricted sleep then they should consider that the cumulative fatigue associated with this, will increase the fatigue risk.

An increased cumulative fatigue will increase the risk associated with subsequent, shorter than required, sleep periods identified in the table and FCMs should put more weight on any symptoms (response to question 1) and take a more conservative approach to any heightened risk identified by using this table.

If the result is High Risk, the FCM must consider discussing this with other employees or the HOO (or delegated person) and may need to address the risk through applying previously defined risk control measures, such as extended rest periods or task rotation. If a decision is made to continue with the duty, proceed to Question 3.

Q3. What time does the duty occur?

Question 3 involves the FCM classifying their duty based on the time of day that the duty occurs. The result falls into one of three bands of risk – Low, Moderate, or High.

They then continue to Question 4.

Q4. What level of operational risk is associated with the duty?

Question 4 involves the FCM classifying the level of operational risk associated with the duty.

It is understood that the accumulation of fatigue will eventually diminish performance and increase error rate, to the point where the FCM becomes ‘fatigue impaired’, or simply too tired for the job intended. Aviation systems should be able to tolerate some human error and diminished performance capability, but very often task demands can increase, due to unforeseen circumstances. Consequently, what was previously acceptable in terms of an acceptable performance/error level, now becomes unacceptable.

Fatigue risk interacts with other areas of human performance, such as workload and task complexity and all of these risks need to be considered and if necessary, addressed.

For fatigue risk, FCMs should consider what factors are associated with the tasks allocated to them prior to presenting as fit for duty. This is because it has been well researched that reduced alertness (or the accumulation of fatigue) impacts on ‘real world skills’. FCMs, other employees and the HOO (or delegated person) should consider fatigue risks that may be present in conjunction with other risks, such as the type of task being undertaken, the nature of the airspace, weather considerations, airport demands and aircraft serviceability.

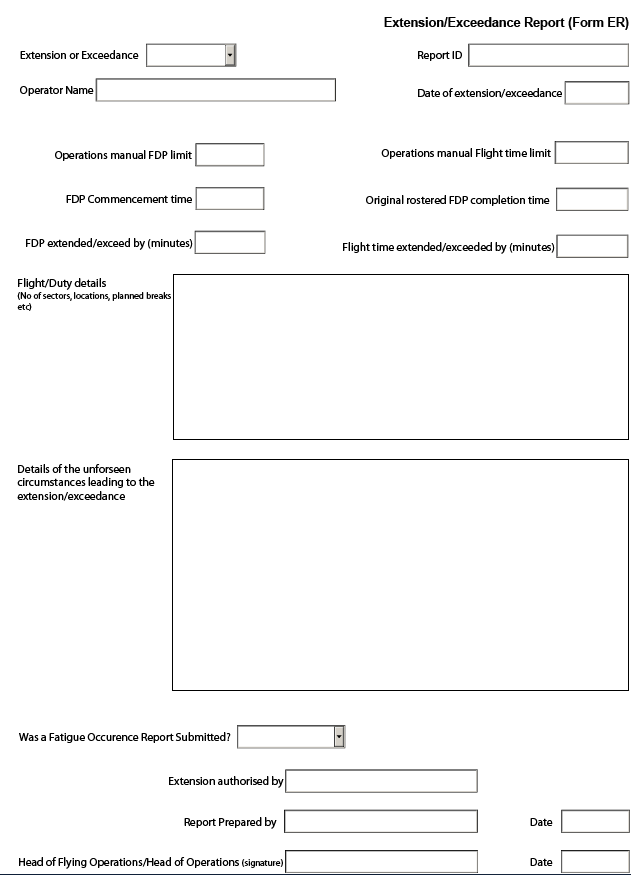
Furthermore, all should recognise that tasks that involve cognitive performance (e.g., decision making, memory capacity) and threat and error management can potentially be poorly measured or mismanaged by a FCM who is fatigued.

Using ACT, the FCM continues to the final step, in order to assist their determination of whether they may have adequate alertness to undertake the duty.

Determine the fatigue risk level and what may need to be considered when determining whether to undertake this duty

Based on the results for Questions 1-4, the FCM can use the table provided to determine whether a fatigue risk may be present during this duty. Together with measured levels of alertness, FCMs can begin discussing how to manage possible risks with the HOO (or delegated person) and subsequently develop an effective risk management plan.

### Extension Report (Form ER)



***Note:*** *This form is available as a PDF fillable form from CASA.*

## References

[Fatigue Related Information (CASA)](http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_101105)

[Key information (CASA)](http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_101106)

[Fatigue Q&A (CASA)](http://www.casa.gov.au/scripts/nc.dll?WCMS:STANDARD::pc=PC_100981)

[Fatigue – Training & Development workbook (CASA)](http://www.casa.gov.au/wcmswr/_assets/main/aoc/fatigue/fatigue_toolkit_strategies.pdf)

[Fatigue – Trainers handbook (CASA)](http://www.casa.gov.au/wcmswr/_assets/main/aoc/fatigue/fatigue_toolkit_trainerhb.pdf)

[Fatigue – Employee Training Assessment (CASA)](http://www.casa.gov.au/wcmswr/_assets/main/aoc/fatigue/fatigue_toolkit_assessment.pdf)

[Fatigue – Training PowerPoint Presentation (CASA)](https://www.casa.gov.au/files/fatiguetoolkitpresentationppt)

[CAAP 215-1 - Guide to the preparation of Operations Manuals](https://www.casa.gov.au/files/2151pdf)

[CAAP 48-1 - Fatigue Management for Flight Crew Members](https://www.casa.gov.au/files/481pdf)

[CAO 48.1 Instrument 2013](https://www.legislation.gov.au/Series/F2013L00628)

# STOM – [Global 123 FSTD]

# APPENDICES AND FORMS

## APPENDICES

|  |  |
| --- | --- |
| Ref | Syllabus |
| 9A1 | Training Area Map |
| 9A2 | FSTD Accreditation Certificate |
| 9A3 | Drug and Alcohol Management Program |
| 9A4 | Course IT3 - Human Factors and Non-Technical Skills Program |
| 9A5 | Course IT4 - Fatigue Training Syllabus |
| 9A6 | SMS Gap analysis checklist |

### Training Area Map

Reserved

### FSTD Accreditation Certificate

>> Insert FSTD Accreditation Certificate here <<

### Drug and Alcohol Management Program

>> Insert DAMP manual here <<

### Course IT3 - Human Factors and Non-Technical Skills Program

|  |  |
| --- | --- |
| Flight Instructor training in Human factors principles and non- technical skills: Training development | |
| Delivery Method:  Facilitated Discussion with HOO  Training structure:  The Training syllabus is presented against a three year cycle, delivering selected modules during the calendar year. Training structure should incorporate the following approach:  **Schedule A** – Induction training  Schedule A is only required for IT2 (Induction training)  **Schedule B** – Operational incident and risk profile review  Review of contributory factors in similar operational training incidents, this schedule is required each cycle.  **Schedule C** – HF competency element modules  For each cycle, the HOO will select 4 modules of training not repeating any modules from schedule C until these have all been completed\*.  **Induction –** Module A, Module B, Module C#, Module C#, Module C#  **Refresher –** Module B, Module C#, Module C#, Module C#, Module C#.  \*Variation of the syllabus due to local events may be appropriate if directed by the HOO.  Assessment Methodology:  Facilitator assessment of appropriate level of engagement during interactive question and answer session. | Training Materials:  Safety behaviours: Human factors for Pilots/ Engineers.  Organisation incident reports  A selection of relevant events that relate to specific HF elements and NTS countermeasures for consideration and review. |

| Human Factors and Non-technical skills training Schedule A (Induction) | Notes |
| --- | --- |
| Module A. Induction and introduction to Human factors   * Refresh and further develop the need to address human factors in aviation operations * Highlight that human performance issues continue to dominate aviation accidents statistics * The challenge of managing error and safe operations in the training environment * Identify the sources and interactions that influence human performance * Present either (or both) the PEAR model or SHELL model * Outline the human factor elements associated to each element of the models used * Illustrate how improved technical and non- technical skills can positively support safety and performance * Outline the organisations development of procedures and the use of human factors knowledge to enhance the safe undertaking of training activities * Explain the format of the course and the expected outcomes in enhancing existing HF knowledge in the flight training environment | Session A  (To be delivered for Instructor induction and as an introduction to HF and NTS) |

|  |  |
| --- | --- |
| Human Factors and Non-technical skills training  Schedule B (Operational incident and risk profile review) | Notes |
| Module B. Safety incident HF Risks review   * Review both a sample of recent relevant safety incidents. (e.g., Ground strikes, heavy landings, incorrect configurations.) * Determine key HF elements that contributed to the events * Discuss the likelihood or potential of these incidents within your operation * Determine potential solutions and Non-technical skills and behaviours that may have reduced the potential of the event | Conducted on induction and each cycle |

| Human Factors and Non-technical skills training  Schedule C – subjects – (select 3 of the following subjects) | Notes |
| --- | --- |
| Module C1 – Fatigue   * Determine the participants understanding of the following elements: * What is fatigue? * The impact of fatigue impairment * The causes of fatigue * personal factors that may increase the impact * organisational factors * operational factors * Identify strategies to manage fatigue * Personal management * Fitness to fly – Student and Instructor * Identify the relevant processes and reporting requirements to manage fatigue within your organisation |  |
| Module C2 – Stress   * Determine the participants understanding of stress as a contributor to degraded human performance and safety incidents. * Workload – * Overload and underload * Personal stress – Instructor fitness to fly * Domestic Stress * Student stress – student fitness to fly * Describe the influence of stress on flight training and learning (consider the areas of overload and underload on flight training activities) * Identify steps to manage the stress * Managing personal stress * Managing the instructional and training environment to minimize student stress * Identify available organisational assistance |  |
| Module C3 – Alcohol and other drugs (Effects on Human performance)   * Determine the participants understanding of the influence of Alcohol and other drugs on human performance in the training environment. Consider reviewing the following elements; * the influence of drugs and alcohol on brain and behaviour * depressants, Stimulants and Hallucinogens * organisation Alcohol * Identify the requirements of CASA’s AOD program – and your organisational expectations and processes to manage AOD and safety * Identify the relevant support and assistance available to employees |  |
| Module C5 – Communication   * Determine the participants understanding of Communication models, methods and barriers to communication. Consider including discussion points such as; * One way and two way models * Methods including; * Verbal, non-verbal * Phrases and jargon * Written communication * Information transfer (use of other mediums) * Discuss the relevance to safety (consider using examples of communication failures) * Discuss the relevance to flight training activities * The importance of briefings * Overcoming barriers to communication * The influence of authority gradients * Unfamiliarity of formal language * Communication errors | **Note:** Ideally utilise examples of flight instruction incidents |
| Module C6 – Teamwork   * Determine the participants understanding of teamwork and how this relates to the flight training environment. * Identify the positive characteristics of teams and supporting conditions for team work * Discuss how the characteristics and conditions may relate to: * The local aerodrome environment and training locations * Single pilot operations * Dual and instruction activities * The Instructor and student in the operating environment * Instructor to student briefings * Student to instructor briefings * Control handover * Read-back and radio communications | **Note:** Ideally utilise examples of flight instruction incidents |
| Module C7 – Leadership   * Identify any gap in participants understanding of leadership * Describe the role of leadership and followership concepts to the flight instruction environment. Consider refreshing participants understanding of the following subjects; * Styles and adaptability * Authority and Assertiveness * Planning and organisation * Monitoring and managing workload * Creating an appropriate operating climate – setting the tone * Leadership under stress * Managing conflict * Practical safety leadership practices * Airmanship * Outline and discuss the expected behaviours of the organization regarding professionalism * Supporting a reporting culture and positive safety environment |  |
| Module C8 – Situation awareness   * Determine the participants understanding of Situation awareness as a process and product and what differences may be relevant in the training environment. Consider reviewing the following: * Perception, comprehension, projection Communication: expectation and meaning * Impact of workload and stress * Goal/ task fixation – cognitive tunnelling * Describe and discuss potential situations and personal events that were influenced by a ‘loss of situation awareness’. (**Note:** if there are no issues raised, use examples from industry reports that relate to your operating environment). * Review factors that may have reduced SA in the discussed scenarios * Identify countermeasures that could have been applied * Identify practical strategies to maintain and enhance situational awareness * Aviate, navigate, communicate * Planning and briefing * Seek information * Plan before you communicate, Active listening, read-back, and review * Eyes out, eyes in. * Making time. | **Note:** Ideally utilise practical examples of flight instruction incidents. |
| Module C9 – Decision Making   * Determine the participants understanding of Decision making as a process and product and what differences may be relevant in the training environment. * Discuss decision making strategies. * Consider the influence of the training environment and the level of capability of the student * The risk of assumptions * Communication and sourcing information * Decision making and problem solving * Skill based * Rule based * Knowledge based * Practical approaches to enhancing decision making performance and opportunity. * If you can… make time or remove the risk * Application of the tools in an operational environment | **Note:** Ideally utilise practical examples of flight instruction incidents. |
| Module C10 – Threat and Error Management   * Determine the participants understanding of human error. Consider reviewing: * Error vs performance variability * Define threats and discuss * External and internal threats * Threats associated to your operating environment (i.e. ab initio vs advanced training and student performance) * Define errors and discuss. * Skills based error * Action error * Knowledge based error * Review undesired aircraft states * Apply the discussion points to an operational scenario, to illustrate deviations from an optimum training flight. Determine how these could be managed using a threat and error management approach. * Identify practical Threat and Error Management counter measures that relate to single and dual pilot training activities. * Discuss and identify the use of ‘thinking ahead’. * The requirement to plan * The use of briefings * Allocation of tasks and control authority * Actively check for understanding * Plan execution and monitoring performance * Avoid, Trap and Mitigate * Providing tolerance for error * Enquiry and assertion (Instructor and Student) | **Note:** Ideally utilise practical examples of flight instruction incidents. |
| Module C10 – Threat and Error Management   * Determine the participants understanding of human error. Consider reviewing: * Error vs performance variability * Types of error * Determine the participants understanding of Threat and Error management as a countermeasure. Discuss the following components of the threat and error management approach and the contribution of the flight training environment: * Define threats and discuss * External and internal threats * Threats associated to your operating environment (i.e. ab initio vs advanced training and student performance) * Define errors and discuss. * Skills based error * Action error * Knowledge based error * Review undesired aircraft states * Apply the discussion points to an operational scenario, to illustrate deviations from an optimum training flight. Determine how these could be managed using a threat and error management approach. * Identify practical Threat and Error Management counter measures that relate to single and dual pilot training activities. * Discuss and identify the use of ‘thinking ahead’. * The requirement to plan * The use of briefings * Allocation of tasks and control authority * Actively check for understanding * Plan execution and monitoring performance * Avoid, Trap and Mitigate * Providing tolerance for error * Enquiry and assertion (Instructor and Student) | **Note:** Ideally utilise practical examples of flight instruction incidents. |
| Module C11 Airmanship   * Determine the participants understanding of airmanship and discuss scenarios of ineffective airmanship * Discuss the qualities of effective airmanship * Discuss the models of airmanship * Look at examples of how to improve airmanship and outline the expected behaviours of the organisation regarding airmanship |  |

### Course IT4 - Fatigue Training Syllabus

| Fatigue Training Syllabus | |
| --- | --- |
| **Delivery Method:**  Lecture and Facilitated Discussion  **Assessment Methodology:**  Facilitator assessment of appropriate level of engagement during sessions; and  Multiple choice knowledge test.  (Any incorrect answers to be reviewed via facilitated discussion during post-test debrief) | **Training Materials:**  Electronic Presentation Media  Fatigue / Ops Manual  White Board  CAO48.1  CAAP 48-1 |
| **Fatigue knowledge** | **Notes** |
| **1. Sleep**  **Duration: 1.5hrs (2x 40 min sessions with 10 min break)** |  |
| **1.1 Sleep physiology**   * Achieve an understanding of the physiological need for sleep * Describe the process of the build-up of ‘sleep pressure’ while awake * Develop an awareness of average and individual minimum sleep needs * Describe the normal sleep process * Achieve a basic understanding of sleep cycles and structure * Develop an understanding of the need for quality sleep * Describe the impact of fragmented sleep on sleep quality | **Session 1** |
| **1.2 Circadian body clock**   * Describe circadian rhythms * Develop an understanding of the biological rhythms that affect alertness and sleepiness * Achieve an understanding of terms such as ‘Sleep gate’ and ‘Window of Circadian Low’ * Achieve an understanding of the impact of daylight on setting or resetting of circadian rhythms. | **Session 1** |
| **1.3 Sleep disorders**   * Develop an awareness of common disorders that may impact sleep quality or quantity including * Sleep apnoea; and * Insomnia | **Session 1** |
| **1.4 Sleep debt and recovery**   * Develop an understanding of how a sleep debt can occur * Describe link between repeated minor sleep loss and substantial sleep debt * Describe how sleep debt must be repaid * Develop an awareness of the potential need for multiple nights of recovery sleep to regain optimum performance | **Session 2** |
| **1.5 Shift work**   * Achieve an understanding of the impact of shift work on sleep and performance * Describe how shift work can impact sleep quantity and quality * Develop an understand of how shift work can result in working at times of circadian lows | **Session 2** |
| **2. Fatigue**  **Duration: 1.5hrs (2x 40 min sessions with 10 min break)** |  |
| **2.1 Understanding fatigue**   * Define fatigue * Achieve an understanding of the types of fatigue * Describe transient and cumulative fatigue | **Session 3** |
| **2.2 The causes and contributors to fatigue**   * Identify major factors affecting fatigue including * Time of day (circadian rhythm effects) * Recent sleep quantity and quality * Time awake * Time on Task * Nature of tasks * Environmental conditions * Hydration * Fitness * Food | **Session 3** |
| **2.3 Signs and symptoms of fatigue**   * Identify the range of signs and symptoms associated with fatigue including: * Physical * Mental; and * Emotional | **Session 3** |
| **2.4 The consequences of fatigue on safety**   * Understanding the impact of fatigue on the effective performance of tasks. | **Session 4** |
| **2.5 High fatigue risk situations**   * Be aware of the areas of human performance most affected by fatigue * Develop knowledge of the type of tasks more sensitive to onset of fatigue related performance decrease. * Develop an understanding of environments and times of the day where fatigue is more likely to occur or to develop more quickly | **Session 4** |
| **2.6 The contribution of fatigue in accidents**   * Appreciate the contribution of fatigue to incidents and accidents in the aviation environment * Review international and Australian case studies of fatigue related aviation incidents and accidents | **Session 4** |
| **2.7 Recovery from Fatigue**   * Understand sleep is the only way to recover from fatigue * Develop an understanding of the average time needed to recover from: * Transient; and * Cumulative fatigue | **Session 4** |
| **3. Countermeasures**  **Duration: 1.5hrs (2x 40 min sessions with 10 min break)** | ***Note:*** *suggested session timings only* |
| **3.1 Tailoring the sleep environment**   * Describe setting up a bedroom or sleeping facility to aid in achieving quality sleep | **Session 5** |
| **3.2 Managing sleep habits**   * Understand how to develop habits beneficial to quality sleep | **Session 5** |
| **3.3 Napping**   * Describe the benefits of napping * Develop an understanding of how napping can reduce the impact of fatigue during duties * Describe effective napping techniques * Achieve an understanding of controlling napping duration to reduce sleep inertia | **Session 5** |
| **3.4 Exercise**   * Describe how exercise can assist in mitigating the impact of fatigue * Describe how increased fitness can improve individual resistance to the onset of fatigue | **Session 5** |
| **3.5 Nutrition and hydration**   * Describe how appropriate nutrition and hydration can aid in mitigating fatigue * Develop an understanding of food types and nutrition strategies that maintain energy without causing undue drowsiness | **Session 5** |
| **3.6 Caffeine**   * Describe the effect of caffeine on alertness * Develop an understanding of the benefits and limitations of the strategic use of caffeine to mitigate fatigue | **Session 6** |
| **3.7 Avoidance of alcohol before bed**   * Be aware of the impact of alcohol on the quality of sleep * Develop an understanding of appropriate consumption of alcohol to limit the impact on sleep quality | **Session 6** |
| **3.8 Use of sleep aids**   * Describe common prescription and over the counter sleeping pills and sedatives * Understand the use, limitations and risks associated with the use of sleep aids * Develop an understanding of the health and performance effects of sleeping pills and sedatives * Describe the concept of clearance times associated with the use of sleep aids | **Session 6** |
| **3.9 Avoidance of nicotine**   * Develop awareness that nicotine is a stimulant that may impact ability to sleep | **Session 6** |
| **3.10 Keeping a sleep log**   * Discuss the limitations of informally tracking sleep quantity and quality * Develop an awareness of the potential for overestimating sleep * Discuss the use of a structured sleep log to accurately record sleep quantity and quality * Identify the structure and content of an appropriate log to aide recording of sleep information * Develop an appreciation of the benefits of a sleep log in identifying negative habits or repeated minor sleep deficits and in forming beneficial sleep habits | **Session 6** |
| **4. Company fatigue management procedures**  **Duration: 1.5hrs (2x 40 min sessions with 10 min break)** |  |
| **4.1 Fatigue Risk Management Policies**   * Develop an understanding of organisational fatigue risk management policies appropriate for the individuals’ position and duties | **Session 7** |
| **4.2 Application of Flight and Duty Limits**   * Ensure an understanding of the application of organisational flight and duty time limits | **Session 7** |
| **4.3 Fatigue Management processes and Procedures**   * Develop a working understanding of organisational fatigue management procedures and processes (including proper use of forms) | **Session 7** |
| **4.4 Alertness Consideration Table**   * Understand the correct use of the organisation’s alertness consideration table (*Form ACTab*) | **Session 8** |
| **4.5 Extension policy and procedures**   * Understand the application of organisational policy and procedure for extensions (and exceedances) | **Session 8** |
| **4.6 Flight Crew Members’ obligations**   * Develop an awareness of a FCM’s obligations regarding individual fatigue management | **Session 8** |
| **4.7 Rostering and recording system**   * Understand the use of the organisation’s rostering and recording system | **Session 8** |

### SMS Gap analysis checklist

Instructions:

Use the following checklist to determine which safety management system elements may be missing from your organisation. Answer the questions frankly for your organisation, with a ‘yes’, ‘no’, or ‘NA’ (not applicable).

Any points for which you tick ‘no’ you will need to examine further.

Count the total number of checked ‘yes’ answers, divide by the number of total checked items and multiply by 100 to get a positive percentage assessment result.

For example, if there were 39 ‘yes’ responses on the gap analysis checklist.

As can been seen, this gives a 56 per cent positive assessment.

The 44 per cent negative assessment result shows the SMS elements requiring attention.

| SMS element | Check question | Response |
| --- | --- | --- |
| **Safety policy, objectives and planning** | **Management commitment and responsibility**  Is there a safety policy statement signed by the CEO?  Is the safety policy appropriate for the size, nature and complexity of the organisation?  Is the safety policy readily visible and accessible to all staff?  Are there clearly established safety objectives compatible with the safety policy?  Are the safety objectives measurable?  Are the safety objectives periodically reviewed to ensure ongoing validity? | No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA |
|  | **Safety accountability of managers**  Are the roles and responsibilities of management in the SMS documented?  Are the values of management identified as being safety oriented?  Are management aware of their SMS obligations? | No Yes NA  No Yes NA  No Yes NA |
|  | **Appointment of Key Safety Personnel**  Is there a safety manager/officer appointed to champion the SMS?  Is there a position description outlining the responsibilities of the safety manager/officer?  Does the appointed safety manager/officer have the required knowledge for the job?  Are there sufficient resources (financial, human, hardware/software) to support the SMS? | No Yes NA  No Yes NA  No Yes NA  No Yes NA |
|  | **SMS implementation plan**  Is there an SMS implementation plan to target resource allocation?  Has a gap analysis been undertaken to identify existing and missing SMS elements?  Are priorities for SMS implementation based on identified risks? | No Yes NA  No Yes NA  No Yes NA |
|  | **Contractors (third party interfaces)**  Does the organisation assess a contractor’s previous safety performance before procuring contracted services?  Does the organisation have contracts or service level agreements with contractors clearly specifying the safety standards they must meet?  Does the organisation audit ongoing contractor safety performance for compliance regularly? | No Yes NA  No Yes NA  No Yes NA |
|  | **Emergency response plan**  Is there an appropriate emergency response plan for all workplace locations?  Has the organisation assessed which emergencies are most likely and developed plans for each different type?  Is there documentation of all major hazards in the work area?  Are there sufficient notices in the workplace advising people what to do in the event of an emergency?  Does the organisation have regular emergency exercises/drills? | No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA |
|  | **Documentation**  As part of SMS documentation, has the organisation developed a safety management manual?  Are there written policies, procedures and instructions covering all the SMS standards?  Are these written policies, procedures and documents authorised, current and available to all relevant personnel?  Is there a written policy for retaining and maintaining SMS documentation?  Are all documents maintained in accordance with established document control procedures? | No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA |
| **Safety risk management** | **Hazard identification**  Is there an effective ongoing hazard identification program?  Does the hazard identification program include a confidential reporting system?  Are confidential reports properly de-identified?  Are hazards associated with contracted agencies included in the hazard reporting system?  Is there a procedure for acknowledging safety-related reports?  Are the results of hazard reports and safety suggestions made available to the initiator? | No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA |
|  | **Risk assessment and mitigation**  Is the process for risk assessment and management fully documented?  Is there a process for continuously assessing hazards for their risk potential (likelihood and severity)?  Does the organisation have a process for managing risks to a tolerable level i.e. as low as reasonably practicable (ALARP)? | No Yes NA  No Yes NA  No Yes NA |
| **Safety assurance** | **Safety performance monitoring and measurement**  Are there key safety performance indicators to measure aviation safety performance?  Are the safety performance indicators monitored for achievement?  Do the safety performance indicators go beyond reactive/lag indicator measurement? | No Yes NA  No Yes NA  No Yes NA |
|  | **Internal safety investigation**  Is there a simple, user-friendly system for reporting safety occurrences?  Is there a standard procedure for incident/accident investigation?  Is the approach to incident/accident investigation systemic in nature i.e. focused on root causes? (the ‘why’)  Are both immediate causes (active failures) and contributing factors (latent conditions) identified?  Are enough resources/time dedicated to conducting investigations?  Are recommendations/corrective actions tracked to ensure completion?  Are recommendations/corrective actions reviewed to determine if they have been effective in reducing risk?  Is a just culture policy applied post investigation to consistently manage at-risk behaviour? | No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA |
|  | **Management of change**  Is there a documented change management procedure?  Are changes carefully planned and staggered?  Does the procedure require identification of (and consultation with) all stakeholders?  Does the change management procedure contain an appropriate risk management strategy to reduce risks associated with the proposed change?  Is performance monitored after the change? | No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA |
|  | **Continuous improvement**  Are there regular internal and external audits to check if the SMS is working?  Does the organisation have a written procedure specifying how and when the effectiveness of the SMS is evaluated? | No Yes NA  No Yes NA |
| **Safety promotion** | **Training and education**  Has the organisation done a training needs analysis and clearly defined competencies?  Is a supply of safety-related information (magazines, books, pamphlets, posters, videos, DVDs, online resources) readily available to all employees who have safety responsibilities?  Are employees encouraged and assisted to attend safety-related training courses and seminars?  Are new employees given sufficient T&C in their technical duties prior to being permitted to operate either supervised or unsupervised?  Is the refresher T&C of all employees adequate?  Are employees given sufficient training in new procedures?  Are trainers and checkers adequately trained and checked, both for competence and standardisation?  Are employees trained in the procedures and policies of the SMS?  Is there a training records register?  Are training initiatives evaluated to determine if they are effective? | No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA  No Yes NA |
|  | **Safety communication**  Are regular briefings/toolbox talks/newsletters etc used to communicate with staff about current safety issues?  Are there set standards for safety communication—the best method of communicating specific messages?  Does the organisation share safety-related information freely with all employees? | No Yes NA  No Yes NA  No Yes NA |
| **Results** | **Total number of ‘yes’ responses**  **Total number of ‘no’ responses** | **Assessment result (% of ‘yes’ responses)**  **\_\_\_\_\_\_%** |
|  | **Number of check questions completed** |  |

## Forms

|  |  |
| --- | --- |
| Ref | Syllabus |
| 9B1 | Exposition distribution & acknowledgement record |
| 9B2 | Internal Auditing Form |
| 9B3 | Training Record Audit |
| 0 | **Error! Not a valid result for table.** |
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| 0 | **Error! Not a valid result for table.** |
| 9B12 | CAO 48.1 – Flight Crew Member Flight & Duty Record |
| 9B13 | Details of Registered Aeroplanes & FSTDs |
| 0 | **Error! Not a valid result for table.** |
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| 9B19 | Flight Authorisation Sheet (VH - \_\_\_\_\_\_ ) |
| 9B20 | Aircraft Journey Log (VH - \_\_\_\_\_\_ ) |
| 9B21 | Application for Enrolment |
| 9B22 | Course Evaluation Form |
| 9B23 | Flight Test Register |

### Exposition distribution & acknowledgement record

Instructions:

1. All instructors must sign this sheet in the paper master copy of the Exposition. The master copy is held by the HOO.
2. By signing this acknowledgement record, instructors are certifying that they have read the Exposition, understood and agreed to comply with the procedures, instructions and data contained within.
3. Each person required to sign must do so initially before commencing operations with the company and after any amendment to the Exposition.

|  |  |  |  |
| --- | --- | --- | --- |
| Version number | Name | Signature | Date |
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### Internal Auditing Form

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **Records** | **Date of Audit:** | **For Period:** | **From:** | **To:** | **Compliant?** |
| **Flight authorisations** | |  | | | | **Y/N** |
| **A/C journey logs** | |  | | | | **Y/N** |
| **Fuel records** | |  | | | | **Y/N** |
| **Maintenance records** | |  | | | | **Y/N** |
| **DAMP records** | |  | | | | **Y/N** |
| **Exposition acknowledgment** | |  | | | | **Y/N** |
| **Instructor Records** | |  | | | | **Y/N** |
| **Staff IT&C Records** | |  | | | | **Y/N** |
| Auditor comments (e.g., corrective actions):    **Auditor signature:** | | | | | | |
| **2** | **SMS** | **Date of Audit:** | **For Period:** | **From:** | **To:** | **Compliant?** |
| **SPI targets** | |  | | | | **Y/N** |
| **Hazard & Incident reports** | |  | | | | **Y/N** |
| **Continuous improvement process** | |  | | | | **Y/N** |
| **SM independence** | |  | | | | **Y/N** |
|  | |  | | | | **Y/N** |
| Auditor comments (e.g., corrective actions):    **Auditor signature:** | | | | | | |
| **3** | **Resourcing, Structure & Personnel** | **Date of Audit:** | **For Period:** | **From:** | **To:** | **Compliant?** |
| **Management Structure** | |  | | | | **Y/N** |
| **Organisational structure** | |  | | | | **Y/N** |
| **Financing adequate?** | |  | | | | **Y/N** |
| **Company Infrastructure?** | |  | | | | **Y/N** |
| **Aircraft  numbers & suitability** | |  | | | | **Y/N** |
| **Sufficient qualified  operational staff?** | |  | | | | **Y/N** |
| **All staff qualified IAW Part 61 & Exposition** | |  | | | | **Y/N** |
| Auditor comments (e.g., corrective actions):    **Auditor signature:** | | | | | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **4** | **TMS** | **Date of Audit:** | **For Period:** | **From:** | **To:** | **Compliant?** | |
| **Examinations** | |  | | | | **Y/N** | |
| **Student training records (also refer form Error! Reference source not found.)** | |  | | | | **Y/N** | |
| **Student Logbooks** | |  | | | | **Y/N** | |
| **Scheduling (solo authorisations etc.)** | |  | | | | **Y/N** | |
|  | |  | | | | **Y/N** | |
| Auditor comments (e.g., corrective actions)    **Auditor signature:** | | | | | | | |
| **5** | **Fatigue System** | **Date of Audit:** | **For Period:** | **From:** | **To:** | **Compliant?** | |
| **Fatigue reports** | |  | | | | **Y/N** | |
| **Risk Management** | |  | | | | **Y/N** | |
| **Compliance of personnel** | |  | | | | **Y/N** | |
| **Extensions investigated** | |  | | | | **Y/N** | |
| **Rosters** | |  | | | | **Y/N** | |
| Auditor comments (e.g., corrective actions)    **Auditor signature:** | | | | | | | |
| **6** | **Facilities** | **Date of Audit:** | **For Period:** | **From:** | **To:** | **Compliant?** | |
| **Buildings** | |  | | | | **Y/N** | |
| **Training aids** | |  | | | | **Y/N** | |
| **Kitchen, Office & admin areas** | |  | | | | **Y/N** | |
| **Aircraft condition** | |  | | | | **Y/N** | |
| **IT System, equipment & software** | |  | | | | **Y/N** | |
| Auditor comments (e.g., corrective actions)    **Auditor signature:** | | | | | | | |
| **CEO acknowledgement & recommendations** | | | | | | |
| CEO signature: DATE: | | | | | | |

### Training Record Audit

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date of Audit** |  | | | **Date range** | Start date | | Finish date | |
| **Conducted by** |  | | | | **Student** |  | | |
| **Was the training conducted in accordance with CBT principles?** | | **YES / NO** | **Comments** | | | | | |
| **Do records comply with Exposition?** | | **YES / NO** | **Comments** | | | | | |
| **Do records indicate compliance with civil aviation legislation?** | | **YES / NO** | **Comments** | | | | | |
| **Deficiencies identified and action taken?** | | **YES / NO** | **Comments** | | | | | |
| **Improvements to training suggested?** | | **YES / NO** | **Comments** | | | | | |
| **Lesson plans followed** | | **YES / NO** | **Comments** | | | | | |
| **Competency achieved (in lesson or subsequent)** | | **YES / NO** | **Comments** | | | | | |
| **Examiners comments reviewed?** | | **YES / NO** | **Comments** | | | | | |
| **Flight times accurate & cross checked with logbook?** | | **YES / NO** | **Comments** | | | | | |
| **Overall adequacy of Training Records** | | **Comments** | | | | | | |
| **Training Records are:**  **compliant  not compliant with company standards** | | | **Signature** | | | | | **Date** |

***\*\* Print and use as many copies of this page as is required to complete the audit \*\****

### Initial Instructor Employee Record

**Personal Details:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** |  | | **ARN** | |  |
| **Address** |  | | | | |
| **Phone** | **Business** | **After hours** | | **Mobile** | |
| **Email** | @ | | | | |

**Emergency contact person:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** |  | | **Relationship** | |  |
| **Address** |  | | | | |
| **Phone** | **Business** | **After hours** | | **Mobile** | |
| **Email** | @ | | | | |

**Qualifications:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Licence type** |  | **Aeroplane Category Endorsements** | **A** | **H** | **G** | **Other** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Operational Ratings** | **FIR** | **NVFR** | **PIFR** | **IR** | **LL** | **Class Ratings** | **SEA** | **MEA** | **Other** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Design Feature endorsements** | **MPPC** | **TWU** | **RU** | **GTE** | **PXS** | **Other** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Flight Activity endorsements** | **SPIN** | **AERO** | **FF** | **FAERO** | **Other** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FI Training endorsements** | **1** | **2** | **3** | **NVFR** | **SPIN** | **DF** | **ME** | **Other** |

**Induction Process Sign-off: (certification of all items is required to conduct authorised flight training)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Requirement** | **Sighted/Completed** *(signature)* | **Copy on file (**✔**)** | **Date** |
| **Licence credentials sighted & verified** |  |  |  |
| **Medical Certificate sighted & verified** |  |  |  |
| **Induction course IT1 completed** |  |  |  |
| **Induction course IT2 completed** |  |  |  |
| **Induction course IT3 completed** |  |  |  |
| **Fatigue System training completed** |  |  |  |
| **DAMP Training and testing completed** |  |  |  |
| **Training to operate and instruct on the Global 123 FSTD completed** |  |  |  |
| **Initial S&P Check passed** |  |  |  |

**Instructor – Company Approvals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Approval** | **Remarks** | **Approved by** | | |
| Signature | Title | Date |
| **Conduct company exams** |  |  |  |  |
| **Conduct & supervise PEXO exams** |  |  |  |  |
| **Approval to authorise first Solo flight** |  |  |  |  |
| **Approval to authorise Solo flights other than first solo** |  |  |  |  |
| **Conduct Pre-Licence check flights** |  |  |  |  |
| **Conduct remedial training** |  |  |  |  |
|  |  |  |  |  |

**Senior Instructor – Supplementary Induction for IT & C duties**

|  |  |  |  |
| --- | --- | --- | --- |
| **Component** | **Remarks** | **Sighted/Completed** *(signature)\** | **Date** |
| **Observe induction** |  |  |  |
| **Deliver ground training** |  |  |  |
| **Observe S&P check** |  |  |  |
| **Conduct S&P check** |  |  |  |
| **Administration & Documentation** |  |  |  |

***\*signature indicates a satisfactory standard has been met***

### Key Personnel Familiarisation Training Record

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** |  | | | **ARN** | |  | |
| **Position** |  | | | **Date of Training** | |  | |
| **Subjects / Discussion points** | | | | | **Briefed**  **(**✔**)** | **Comments** | |
| Outline of Company structure, governance and management | | | | |  |  | |
| The legislative framework governing civil aviation in Australia | | | | |  |  | |
| Overview of company operations | | | | |  |  | |
| Scope of the authorised Part 61 training conducted | | | | |  |  | |
| Scope of any other activities the company conducts | | | | |  |  | |
| Regulatory authorisation and compliance procedures | | | | |  |  | |
| Internal reporting and communication protocols and procedures | | | | |  |  | |
| Company Exposition content, structure and amendment processes | | | | |  |  | |
| Responsibilities & duties of position, supporting processes and procedures | | | | |  |  | |
| Outline of company administration systems | | | | |  |  | |
| Summary of relevant *CASR Parts 61*, *141 and 142* | | | | |  |  | |
| Company systems, policies and supporting processes, such as: | | | | |  |  | |
| * Internal Audit and Continuous Improvement processes | | | | |  |  | |
| * Safety Management System | | | | |  |  | |
| * Change management process | | | | |  |  | |
| * The company’s Training Management System | | | | |  |  | |
| * The company’s DAMP program | | | | |  |  | |
| * Rostering and fatigue management system | | | | |  |  | |
| * Internal Training and Checking System | | | | |  |  | |
| * Arrangements with third part suppliers (e.g., maintenance) | | | | |  |  | |
| Completion of the company’s HF/NTS training | | | | |  |  | |
| **The following items are not required for the CEO position** | | | | | | | |
| Process to assess and approve instructors on the Global 123 FSTD | | | | |  |  | |
| Flight testing procedures | | | | |  |  | |
| Conduct of flight reviews | | | | |  |  | |
| **Comments:** | | | | | | | |
| **Training completed** | | **Trainers Name** | **Signed** | | | | **Date** |

### Instructor Induction Training – Course IT1

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** |  | | | **ARN** | | |  | |
| **Position** |  | | | **Date of Training** | | |  | |
| **General company overview - Discussion points** | | | | | **Briefed**  **(**✔**)** | | **Comments** | |
| Outline of Company structure and governance | | | | | |  |  | |
| Authorised Part 141 and 142 training conducted by the company | | | | | |  |  | |
| Company Exposition content, structure and amendment processes | | | | | |  |  | |
| Safety Management System | | | | | |  |  | |
| Internal Training and Checking System | | | | | |  |  | |
| Individual responsibility to only conduct training authorised | | | | | |  |  | |
| Instructor responsibility to maintain qualifications & recency | | | | | |  |  | |
| Aeroplane refuelling | | | | | |  |  | |
| Aeroplane maintenance certification | | | | | |  |  | |
| Rostering and fatigue management | | | | | |  |  | |
| Change management processes | | | | | |  |  | |
| Company DAMP program | | | | | |  |  | |
| Completion of CASA ‘Alcohol and other Drugs’ eLearning | | | | | |  |  | |
| Outline of company administration systems | | | | | |  |  | |
|  | | | | | |  |  | |
|  | | | | | |  |  | |
| **Comments** | | | | | | | | |
| **Course IT1 completed** | | **Trainers Name** | **Signed** | | | | | **Date** |

### Instructor Induction Training – Course IT2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** |  | | | **ARN** | |  | |
| **Position** |  | | | **Date of Training** | |  | |
| **Training Management System - Discussion points** | | | | | **Briefed**  **(**✔**)** | **Comments** | |
| Principles of CBT | | | | |  |  | |
| Syllabuses and lesson plans | | | | |  |  | |
| Development of training plans, assessment plans | | | | |  |  | |
| Production of course outlines and joining instructions | | | | |  |  | |
| Management of training records including achievement records | | | | |  |  | |
| Determination and provision of instruction and support personnel including for completion of a course | | | | |  |  | |
| Scheduling of Instructors and resources | | | | |  |  | |
| Internal Training and Checking System | | | | |  |  | |
| Determination and provision of facilities and equipment | | | | |  |  | |
| Conduct of examinations and tests | | | | |  |  | |
| Student performance review | | | | |  |  | |
| Supervision of student pilot solo flight (supervision or approval for solo flight?) | | | | |  |  | |
| Means of accessing the TMS | | | | |  |  | |
|  | | | | |  |  | |
| **Comments** | | | | | | | |
| **Course IT2 completed** | | **Trainers Name** | **Signed** | | | | **Date** |

### Instructor Induction Training – Course IT3

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name:** |  | | | **ARN:** | | |  |
| **Position:** |  | | | **Date of Training:** | | |  |
| **HF/NTS - Discussion points** | | | | | **Briefed**  **(**✔**)** | | **Comments** |
| Fatigue | | | | |  | |  |
| Stress | | | | |  | |  |
| Alcohol and other drugs | | | | |  | |  |
| Communication | | | | |  | |  |
| Teamwork | | | | |  | |  |
| Leadership | | | | |  | |  |
| Situational awareness | | | | |  | |  |
| Decision making | | | | |  | |  |
| Threat and error management | | | | |  | |  |
| Airmanship | | | | |  | |  |
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| **Comments:** | | | | | | | |
| **Course IT3 completed** | | **Trainers Name** | **Signed** | | | **Date** | |

### Instructor S&P / FSTD Check Report

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Instructor** |  | **ARN** |  | | **Date of check** | |  |
| **Checker** |  | **Type of check** | | S&P  FSTD | | Initial  Annual | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Instructor Credentials** | | | | | | | | | |
| **Licence:** | **Training endorsements:** | | | | **FPC validity:** | **Medical Certification Validity:** | | | |
| **CPL** | **1** | **2** | **3** | **NVFR** | **Date** | **1** | **Date** | **2** | **Date** |
| **ATPL** | **DF** | **AERO** | **SPIN** | **ME** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Ground Briefing** | **Subject** |  | **Time start** | | **Time finish** | | **Duration** | |
| **Followed lesson plan?** | **YES / NO** | **Review questions?** | **YES / NO** | | **To standard?** | | **YES / NO** |
| **Comments** | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Air/SIM Ex** | **Flight lesson** |  | **A/C** | | **Off blocks** | **On blocks** | | | **Flt time** |
| **Pre-Flight brief to standard?** | **YES / NO** | **Review questions?** | **YES / NO** | | | **To standard?** | **YES / NO** | |
| **Comments** | | | | | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Non-Normal** | **Type of event** |  | **To standard?** | **YES / NO** |
| **Comments** | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Oral Quiz** | | | | | | | |
| **SUBJECT** | **Part 61 MOS** | **Exposition** | **TMS** | **CBT** | **SMS** | **HF/NTS** | **STOM** |
| **At standard?** | YES / NO | YES / NO | YES / NO | YES / NO | YES / NO | YES / NO | YES / NO |
| **Comments** | | | | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Result** | | | **Signatures & date** | |
| SATIS | UNSAT | Records Updated | **Checker** |  |
| **Candidate** |  |
| NFA | CEO advised  CASA advised | Date: | **HOO** |  |
| **CEO** |  |

### Student Flight Training Record

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **Personal Details** | | | | | | | |
| **Name** | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Address** | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Phone** | | | | **Business** | | | | | | | **After hours** | | | | | | | | | | | | | | | **Mobile** | | | | | | |
| **Email** | | | | @ | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **2** | **Emergency contact person** | | | | | | | |
| **Name** | | | |  | | | | | | | | | | | | | | | **Relationship** | | | | | | | |  | | | | | |
| **Address** | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Phone** | | | | **Business** | | | | | | | **After hours** | | | | | | | | | | | | | | | **Mobile** | | | | | | |
| **Email** | | | | @ | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **3** | **Aviation Credentials & Training Experience** | | | | | | | | | | | | | | | |
| **ARN** | | | | | |  | | | | | | | | | | | | **Medical** | | | | **Class** | | | | | | | | | **Validity** | |
| **Last Medical** | | | | | | **Place** | | | | | | | | **Date** | | | | | | | | | | | **Doctor's name** | | | | | | | |
| **Previous flight school** | | | | | |  | | | | | | | | | | | | **Training records?** | | | | | | | | | | **YES / NO / N/A** | | | | |
| **Hours Last 12 mths** (if applicable) | | | | | |  | | | | | | | | | | | | **Last Flight (if applicable)** | | | | | | | | | | **Date** | | | | |
| **A/C Types Flown** | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **4** | **Previous Flying Summary** | | | | | | | |
| **ALL FLYING (hrs)** | | | | | | | | | | | |  | | | **NAV (hrs)** | | | | | | | |  | **INSTRUMENT (hrs)** | | | | | | | | |
| **TOTAL** | | **PIC DAY** | | | **PIC NGT** | | **DUAL DAY** | | | **DUAL NGT** | |  | | | **DUAL X/C** | | | | | **PIC X/C** | | |  | **TOTAL I.F.** | | | | | **A/C I.F.** | | | **SIM I.F.** |
|  | |  | | |  | |  | | |  | |  | | |  | | | | |  | | |  |  | | | | |  | | |  |
| **5** | **Training Achievements** | | | | | | | |
| **Part A - AERONAUTICAL KNOWLEDGE** | | | | | | | | | | | | |  | | | **Part B - FLYING TRAINING** | | | | | | | | | | | | | | | | |
| **SUBJECT** | | | **DATE** | | | | | **CERTIFIED BY** | | | | |  | | | **EVENT** | | | | | **DATE** | | | | | | | | | **CERTIFIED BY** | | |
| **ELP** | | |  | | | | |  | | | | |  | | | **First DAY Solo** | | | | |  | | | | | | | | |  | | |
| **Pre-Solo Air legislation** | | |  | | | | |  | | | | |  | | | **First T/A Solo** | | | | |  | | | | | | | | |  | | |
| **T/A Solo Air legislation** | | |  | | | | |  | | | | |  | | | **RPL flight test** | | | | |  | | | | | | | | |  | | |
| **Aircraft tech knowledge (SE)** | | |  | | | | |  | | | | |  | | | **First NAV Solo** | | | | |  | | | | | | | | |  | | |
| **RPL (BAK)** | | |  | | | | |  | | | | |  | | | **PPL flight test** | | | | |  | | | | | | | | |  | | |
| **NAV** | | |  | | | | |  | | | | |  | | | **First NGT Solo** | | | | |  | | | | | | | | |  | | |
| **Radio** | | |  | | | | |  | | | | |  | | | **DF (RU & MPPC)** | | | | |  | | | | | | | | |  | | |
| **CTA/CTR** | | |  | | | | |  | | | | |  | | | **NVFR flight test** | | | | |  | | | | | | | | |  | | |
| **PPL theory** | | |  | | | | |  | | | | |  | | | **CPL flight test** | | | | |  | | | | | | | | |  | | |
| **CPL theory** | | |  | | | | |  | | | | |  | | | **ME Class test** | | | | |  | | | | | | | | |  | | |
| **PA28R tech exam** | | |  | | | | |  | | | | |  | | |  | | | | |  | | | | | | | | |  | | |

### Instructor Qualifications & Approvals Register

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Pilot** | | | **Due Dates** | | | | | | | | **Training Endorsements & Approvals** | | | | | | | | | | | | **Remarks** |
| Name | | ARN | S&P | MED | FPC | EPC | IPC | DAMP | HF  NTS | ASIC | 1 | 2 | 3 | NV | DF | SP | AE | SE | ME | FS | SIM | FE |
| BLOGS | 999999 | | 01/01/16 | 01/01/16 | 22/12/16 | --- | 01/01/16 | 01/01/16 | 01/01/16 | 01/01/16 | ✔ | ✔ | ✔ | ✔ | ✔ |  |  | ✔ |  | ✔ | ✔ | ✔ | Senior Instructor 141, conduct of PEXO exams |
| JONES | 000000 | | 30/04/17 | 31/07/16 | 31/01/17 | 28/02/17 | 30/06/17 | 30/06/16 | 31/12/17 | 30/11/17 | ✔ | ✔ | ✔ | ✔ | ✔ |  | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | Flight Examiner & Senior Instructor 142 |
| SAFETY | 111111 | |  |  |  |  |  |  |  |  |  | ✔ | ✔ | ✔ | ✔ |  |  | ✔ |  |  | ✔ | ✔ | Safety manager |
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**Legend:** **S&P** Standardisation & Proficiency Check, **MED** Medical Certificate, **FPC** Flight Instructor Proficiency Check ,**EPC** Flight Examiner Proficiency Check, **IPC** Instrument Proficiency Check, **DAMP** Drug & Alcohol Management Program, **HF/NTS** Human Factors/Non-technical Skills, **ASIC** Aviation Security Identification Card, **SP** Spin; **NV** Night VFR, **AE** Aerobatics, **DF** Design Feature, **SE** Single-engine aircraft, **ME** Multi-engine aircraft, **FS** First Solo, **SIM** – Approved to conduct on the company FSTD, **FE** Flight Examiner // \***\***Additional approvals may include : Flight Examiner, Safety manager, conduct of ground examinations, etc.

**(*NOTE: To facilitate desktop or noticeboard use this sheet can be printed on A3 sized paper)***

### CAO 48.1 – Flight Crew Member Flight & Duty Record

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FCM:** | **NAME** | | | **From:** | | **SUNDAY:** | | **INSERT DATE** | | | | | **Until:** | | **SATURDAY:** | | **INSERT DATE** | |
| **Date** | | **FDP start** | **FDP finish** | | **Total Duty** | | **FDP extended?** | | **Total Flight** | | **Flt time extended?** | **28 Day Flt Time** | | **365 Day Flt Time** | | **Remarks** | | **Signature** |
|  | | | | | | | | | | **Brought Forward** | |  | |  | |  | | |
| **SU** | |  |  | |  | | **Y/N** | |  | | **Y/N** |  | |  | |  | |  |
| **MO** | |  |  | |  | | **Y/N** | |  | | **Y/N** |  | |  | |  | |  |
| **TU** | |  |  | |  | | **Y/N** | |  | | **Y/N** |  | |  | |  | |  |
| **WE** | |  |  | |  | | **Y/N** | |  | | **Y/N** |  | |  | |  | |  |
| **TH** | |  |  | |  | | **Y/N** | |  | | **Y/N** |  | |  | |  | |  |
| **FR** | |  |  | |  | | **Y/N** | |  | | **Y/N** |  | |  | |  | |  |
| **SA** | |  |  | |  | | **Y/N** | |  | | **Y/N** |  | |  | |  | |  |
|  | | | | | | | | | | **Carried Forward** | |  | |  | |  | | |

**EXTENSIONS:**

1. Was your FDP extended - YES/NO? (Annotate column as appropriate). If "YES" please provide a brief summary or reasons for the extension in the remarks section.
2. Did your flight time exceed 7 hours - YES/NO? (Annotate column as appropriate). If "YES" please provide brief summary and reasons for the extension in the remarks section.

### Details of Registered Aeroplanes & FSTDs

The registered aeroplanes and FSTDs listed below have been, or are currently being operated by the company for Part 141 and Part 142 flight training.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Make** | **Aircraft / FSTD details** | | | | **Period of Operation** | |
| **Type** | **Call-sign** | **Serial number** | **AFM part number** | **From** | **To** |
| [Cessna] | [C152] | [VH-WWW] | nnnnnnn | Enter manufacturers part number |  |  |
| [Cessna] | [C152] | [VH-WWW] |  |  |  |  |
| [Cessna] | [C172] | [VH-XXX] |  |  |  |  |
| [Cessna] | [C172] | [VH-XXX] |  |  |  |  |
| [Cessna] | [C172] | [VH-XXX] |  |  |  |  |
| [Cessna] | [C172] | [VH-XXX] |  |  |  |  |
| [Piper] | [PA-28R] | [VH-YYY] |  |  |  |  |
| [Piper] | [PA-28R] | [VH-YYY] |  |  |  |  |
| [Beechcraft] | [BE76] | [VH-ZZZ] |  |  |  |  |
| Global 123 | Cat B FSTD | Global 123 | nnnn |  |  |  |
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### Register of Key Personnel and Senior Operational Staff

The persons listed below have been, or are currently occupying key positions or senior operational positions within the company.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of person** | **Company Position** | **Period of Tenure** | |
| **From** | **To** |
| Chris Sample | Chief Executive Officer | 01/07/16 |  |
| Les Sample | HOO | 01/07/16 |  |
| XXX XXXXX | Safety Manager | 01/07/16 |  |
| Les Sample | Chief Executive Office (standby) | DD/MM/YY | DD/MM/YY |
| XXX XXXXX | Operations Officer | 01/07/16 |  |
| XXX XXXXX | Senior Instructor Part 141 | 01/07/16 |  |
| XXX XXXXX | Senior Instructor Part 142 | 01/07/16 |  |
| XXX XXXXX | Flight Examiner (RPL, PPL, CPL, NVFR) | 01/07/16 |  |
| XXX XXXXX | Flight Examiner (RPL, PPL, CPL, NVFR) | 01/07/16 |  |
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### Aeroplane Landings Area (ALA) Survey Report Form

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| --- |
| **ALA Survey Report** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name of ALA** |  | | | | | | | | |
| **Location** | **BRG & DIST FROM** | | | | | | **LAT/LONG** | | |
| **Owner information** |  | | | | | | **PHONE** | | |
|  | | | | | | **EMAIL** | | |
| **Facilities**  **(tick as appropriate)** | TELEPHONE | PAVED ROAD | | MOBILE RECEPTION | | FUEL | | | SHELTER |
| **Nearest town or city** |  | | | | | | | | |
| **Landing Area Diagram**  *(please draw to scale & note significant features)* |  | | | | | | | | |
| **RUNWAY/LANDING AREA** | | | | | | | | |
| **DIRECTION (°M)** | | **LENGTH** | | **WIDTH** | | | **SLOPE** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Elevation** |  | **Lighting** | **YES / NO** |
| **Surface** |  | **Markings** |  |
| **Obstructions** |  | **Identification Features** |  |
| **Comments** |  | | |
| **Reported by (Pilot)** |  | **Date of report** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **HOO**  **Approval** | **SIGNED:** |  | **Date** |  |
| **Conditions of use (tick and cross out as applicable):**  Unrestricted  Normal Ops only  PFL  PS&L  No Circuits  No T&G LDGs | | | |

### Hazard & Incident Report Form

Thank you for taking an active interest in improving company safety standards.

IAW with the Company’s SMS, this form is to be used to report all *Hazards and Incidents* that occur within company operations and is not limited to aviation operations.

The information supplied on this form will only be used to report on any ***aviation incidents*** and ***Occupational Health and Safety incidents*** that would be relevant to the staff, customers and third party contractors of [Sample Aviation] Pty Ltd. On receipt of this form, it will be actioned by the Safety Manager and you will be notified of the outcome. It will then be filed in our safety records as a means of supporting our company policy safety management policy.

**>> PART A – To be completed by person reporting hazard <<**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Name of reporter***  *(leave blank if anonymous)* |  | ***Contact No***  *(optional)* |  |
| ***Date of occurrence*** |  | ***Local Time*** |  |
| ***Location*** | **e.g., Airport code, LAT/LONG, BRG/DIST** | ***ATSB report submitted*** | **YES – NO – N/A** |

***Fully describe the hazard, incident or occurrence:***

|  |
| --- |
|  |

***What do you consider to be the root cause and what actions have been taken or suggestions do you have to prevent or fix the hazard, incident or occurrence from happening again?***

|  |
| --- |
|  |

***In your opinion, what is the likelihood of such an event or something similar occurring again?***

|  |  |  |
| --- | --- | --- |
| **UNLIKELY** | **PROBABLE** | **LIKELY** |
| **1** | **2** | **3** |

***What do you consider could be the worst possible consequence a result of this event and if it were to happen again?***

|  |  |  |
| --- | --- | --- |
| **NEGLIGIBLE** | **SERIOUS** | **CATASTROPHIC** |
| **1** | **2** | **3** |

**>> PART B – To be completed by the Safety Manager <<**

***What is the root cause analysis and what actions have been taken, or are being undertaken to prevent the issue from occurring again in the future and/or to mitigate its consequences?***

|  |  |  |  |
| --- | --- | --- | --- |
| **SAFETY MANAGER REPORT:**                    **RECOMMENDATIONS:** | | | |
| **Signed** |  | **Date** |  |

**>> PART C – Acknowledgement by CEO <<**

|  |  |  |  |
| --- | --- | --- | --- |
| **CEO comments & recommendations** | | | |
| **\*\*NFA  Feedback given to originator  Discuss with HOO** | | | |
| **Signed** |  | **Date** |  |

### Suggestion for Continuous Improvement

Thank you for taking an active interest in the [Sample Aviation Flight Training Pty Ltd] continuous process, which aims to improve the management, conduct and effectiveness of all activities conducted by the company.

Please complete this form and send to the Safety Manager by hardcopy or email. Additional recipients can be added IAW the distribution list in row 2 below.

**>> TO BE COMPLETED BY THE PERSON MAKING THE SUGGESTION <<**

|  |  |  |  |
| --- | --- | --- | --- |
| **Submitted by** |  | **Date** | Click here to enter a date. |
| **Distribution list** | Safety Manager  CEO  HOO | | |

|  |  |  |
| --- | --- | --- |
| **Area of deficiency or ambiguity *(tick)*** | ✔ | **References and/or details** |
| **Exposition** *(all parts)* |  |  |
| **Flight Ops Management** |  |  |
| **Training Syllabuses** |  |  |
| **Standardisation of instruction** |  |  |
| **Training Management System** |  |  |
| **Safety Management System** |  |  |
| **Fatigue Management System** |  |  |
| **DAMP** |  |  |
| **School Facilities** *(buildings, computers & other equipment etc.)* |  |  |
| **Aircraft** *(equipment levels, suitability and serviceability etc.)* |  |  |
| **Aircraft Operating Procedures** |  |  |
| **Other:**  *(describe)* |  |  |

|  |
| --- |
| **Suggested improvement & benefits:** |

**>> Safety Manager use only <<**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Safety Manager acknowledgement** | | | | | |
| **Feedback given to originator** | **YES  NO** | **Discussed with** | | | **CEO  HOO** |
| **Responsibility for action?** |  | | | | |
| **Resources required?** |  | | | | |
| **Safety Manager signature** |  | | **Date** |  | |

### Continuous Improvement Register

Page #:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date** | **Suggested by** | **Area of deficiency or ambiguity** | **Suggested improvement** | **Responsible person** | **Outcome** |
|  |  |  |  |  |  |
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### Flight Authorisation Sheet (VH - \_\_\_\_\_\_ )

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| **Date** | **Crew** | | **Flight Details** | | **Times** | | | **Fuel** | | **Authorisation & Acceptance** | |
| **Student** | **Instructor** | **Route of flight /  Area of Operation** | **D/S** | **VDO Out** | **VDO In** | **Total** | **At Start** | **At Finish** | **Student\*\*** | **Instructor\*\*** |
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**\*Signature indicates student and instructor will comply with any Exposition requirements. (*NOTE: To facilitate desktop use this sheet can be printed on A3 sized paper)***

**\*For solo flight, instructor signature indicates authorisation by an authorised instructor.**

### Aircraft Journey Log (VH - \_\_\_\_\_\_ )

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| **Date** | **Crew** | | **Route / Flight Details** | **Flight Time (VDO)** | | | **Engine Time (TACHO OR A/S)** | | | **Fuel** | | |
| **Student** | **Instructor** | **Out** | **In** | **Total** | **Out** | **In** | **Total** | **At start** | **At end** | **added** |
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### Application for Enrolment

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| **1** | **Personal details** | | | | | | | |
| **Name** | | **Family name** | | | | | | **Given names** | | | | | | | | | | | | **Title** | | | | |
| **Home address** | |  | | | | | | | | | | | | | | | | | | | | | | |
| **Postal address** | |  | | | | | | | | | | | | | | | | | | | | | | |
| **Phone** | | **Daytime hours** | | | | | | | | | **After hours** | | | | | | | **Mobile** | | | | | | |
| **Date of birth** | | **DD/MM/YYYY** | | | | **Current age** | | | | | | | | | **Gender** | | **Male**  **Female** | | | | | | | |
| **Email** | | @ | | | | | | | | | | | | | | | | | | | | | | |
| **^^CASA Medical** | | **Place** | | | | | **Date** | | | | | | | | | **Doctor** | | | | | Class | | | |
| **2** | **Emergency contact person** | | | | | | | |
| **Name** | |  | | | | | | | | | | | | | **Relationship** | | | | |  | | | | |
| **Address** | |  | | | | | | | | | | | | | | | | | | | | | | |
| **Phone** | | **Daytime hours** | | | | | | | | | **After hours** | | | | | | | **Mobile** | | | | | | |
| **Email** | | @ | | | | | | | | | | | | | | | | | | | | | | |
| **3** | **General information** | | | | | | | |
| **Country of citizenship** | |  | | | | | | | | | | **Do you require a visa to study in Australia?** | | | | | | | | **YES**  **NO** | | | | |
| **English Language ability** | | | | Native Speaker  Very good  Good  Not very good | | | | | | | | | | | | | | | | | | | | |
| **English Language assessment score** | | | |  | | | | | | | **Place & date of assessment** | | | | | |  | | | | | | | **DD/MM/YYYY** |
| **4** | **Previous training experience** | | | | | | | |
| **Transferring from another Flight School?** | | | | | | | | | | | | | **YES** (*provide details on next line)* **NO**  **(***go to section 5***)** | | | | | | | | | | | |
| **Name of School** | | |  | | | | | | | | | | | | **Contact name** | | | |  | | | | | |
| **School phone No** | | |  | | | | | | | **School Email** | | | | | @ | | | | | | | | | |
| **Your ARN** | | |  | | | | | | | | | | | | **Date of last flight** | | | | | | | **DD/MM/YYYY** | | |
| **Course studied** | | | **RPL  PPL  CPL(200 hr)  CPL(150 hr)  NVFR** | | | | | | | | | | | | | | | | | | | | | |
| **5** | **Course enrolment** | | | | | | | |
| **>> Indicate below what type of training you would like to enrol for <<** | | | | | | | | | | | | | | | | | | | | | | | | |
| **PART TIME TRAINING** | | | | | | | | | | | | | | **FULL TIME TRAINING** | | | | | | | | | | |
| **RPL (A)** | | | | |  | | | | | | | | | **CPL (A) 150 HOUR COURSE** | | | | | | | | |  | |
| **PPL (A)** | | | | |  | | | | | | | | |
| **CPL (A) 200 HOUR COURSE** | | | | |  | | | | | | | | |
| **Night VFR** | | | | |  | | | | | | | | |
| **Multi Engine Class Rating** | | | | |  | | | | | | | | |

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| **>> Applicant’s signature and declaration <<** | | | |
| **I have read and accept the conditions of enrolment including the refund and cancellation policy of [Sample Aviation Flight Training Pty Ltd].** | | | |
| **Signature** |  | **Date** | **DD/MM/YYYY** |

**^^To accept the enrolment, CASA Medical Certificate details must be entered.**

### Course Evaluation Form

Please complete this course evaluation and give to the CEO. For any items scored at fair or lower, please include additional comments at the end of the evaluation form in the comments section. An overall rating in the terms of how likely you are to recommend this course to others is also requested.

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| **1** | **Student Details** | | | | | |
| **Name** | | | |  | | | | | | **Course No.** | | | |  | | | | |
| **Start Date** | | | |  | | | | | | **Completion Date** | | | |  | | | | |
| **2** | **Overall Course** | | | |
| Please rate each item by ticking the box below the heading which best describes your opinion about the overall quality of the course you have just completed at [Sample Aviation]. | | | | | | | | | | | | | | | | | | |
| **Rating** | | | | | **N/A** | | | **Poor** | | | **Fair** | | | **Good** | | | **Excellent** | |
| Processes: Enrolment | | | | |  | | |  | | |  | | |  | | |  | |
| Induction | | | | |  | | |  | | |  | | |  | | |  | |
| Management | | | | |  | | |  | | |  | | |  | | |  | |
| Joining instructions | | | | |  | | |  | | |  | | |  | | |  | |
| Availability of additional help | | | | |  | | |  | | |  | | |  | | |  | |
| Management communication | | | | |  | | |  | | |  | | |  | | |  | |
| Course duration | | | | |  | | |  | | |  | | |  | | |  | |
| Overall learning experience | | | | |  | | |  | | |  | | |  | | |  | |
| **3** | **Facilities** | | | |
| Please rate each item by ticking the box below the heading which best describes your opinion about the overall quality of the facilities at [Sample Aviation]. | | | | | | | | | | | | | | | | | | |
| **Rating** | | | | | **N/A** | | | **Poor** | | | **Fair** | | | **Good** | | | **Excellent** | |
| Equipment levels | | | | |  | | |  | | |  | | |  | | |  | |
| Classroom comfort | | | | |  | | |  | | |  | | |  | | |  | |
| Classrooms (numbers) | | | | |  | | |  | | |  | | |  | | |  | |
| Briefing rooms (numbers) | | | | |  | | |  | | |  | | |  | | |  | |
| OPS room facilities | | | | |  | | |  | | |  | | |  | | |  | |
| Computer facilities | | | | |  | | |  | | |  | | |  | | |  | |
| Student amenities | | | | |  | | |  | | |  | | |  | | |  | |
| **4** | **Theory delivery** | | | |
| Please rate each item by ticking the box below the heading which best describes your opinion about the overall quality of the theory training provided by [Sample Aviation]. | | | | | | | | | | | | | | | | | | |
| **Rating** | | | | | **N/A** | | | **Poor** | | | **Fair** | | | **Good** | | | **Excellent** | |
| Classes well organised | | | | |  | | |  | | |  | | |  | | |  | |
| Objectives clearly stated | | | | |  | | |  | | |  | | |  | | |  | |
| Theory & flying integration | | | | |  | | |  | | |  | | |  | | |  | |
| Activities relevant | | | | |  | | |  | | |  | | |  | | |  | |
| Ground instructor | | | | |  | | |  | | |  | | |  | | |  | |
| Maps and documents | | | | |  | | |  | | |  | | |  | | |  | |
| Exam management | | | | |  | | |  | | |  | | |  | | |  | |
| Learning documentation | | | | |  | | |  | | |  | | |  | | |  | |
| **5** | | **Flight Training** | | | |
| Please rate each item by ticking the box below the heading which best describes your opinion about the overall quality of the flight training provided by [Sample Aviation]. | | | | | | | | | | | | | | | | | | |
| **Rating** | | | | | | **N/A** | | | **Poor** | | | **Fair** | | | **Good** | | | **Excellent** |
| Scheduling of training | | | | | |  | | |  | | |  | | |  | | |  |
| Pre & post flight briefing times | | | | | |  | | |  | | |  | | |  | | |  |
| Instructor availability | | | | | |  | | |  | | |  | | |  | | |  |
| Rate & pace of training | | | | | |  | | |  | | |  | | |  | | |  |
| Instructor attentiveness & skill | | | | | |  | | |  | | |  | | |  | | |  |
| Aircraft availability | | | | | |  | | |  | | |  | | |  | | |  |
| Aircraft suitability | | | | | |  | | |  | | |  | | |  | | |  |
| **6** | | **Instructor** | | | |
| Please rate each item by ticking the box below the heading which best describes your opinion about the effectiveness and skills of your assigned flying instructor in managing your flight training at [Sample Aviation]. | | | | | | | | | | | | | | | | | | |
| **Rating** | | | | | | **N/A** | | | **Poor** | | | **Fair** | | | **Good** | | | **Excellent** |
| Knowledge | | | | | |  | | |  | | |  | | |  | | |  |
| Feedback | | | | | |  | | |  | | |  | | |  | | |  |
| Briefings | | | | | |  | | |  | | |  | | |  | | |  |
| Professionalism | | | | | |  | | |  | | |  | | |  | | |  |
| Attentiveness | | | | | |  | | |  | | |  | | |  | | |  |
| Availability | | | | | |  | | |  | | |  | | |  | | |  |
| Disposition | | | | | |  | | |  | | |  | | |  | | |  |
| Punctuality | | | | | |  | | |  | | |  | | |  | | |  |
| **Additional comments:**                **Would you recommend this course to others?** **YES  NO  MAYBE** | | | | | | | | | | | | | | | | | | |
| **Signed *(optional)*** | | |  | | | | | | | | | | **Date** | | |  | | |
| **>> CEO comments & follow-up <<** | | | | | | | | | | | | | | | | | | |
| **Feedback given to originator  Discuss with HOO  Discuss with SM** | | | | | | | | | | | | | | | | | | |
| **Signed** | | |  | | | | | | | | | | **Date** | | |  | | |

### Flight Test Register

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| **Date** | **Type of test** | **Candidate** | | **Examiner** | | **A/C** | **Flight time** | **Result** | | | **Remarks** |
| **Name** | **Attempt No** | **Name** | **Test No** | **Pass** | **Fail** | **Not complete** |
|  |  |  |  |  | **Totals carried forward** | | |  |  |  |  |
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|  |  |  |  |  |  |  | **Totals** |  |  |  |  |

## Aeroplane Checklists

>> Insert aircraft checklists here <<

# TRAINING SYLLABUSES

## Approved Part 141 & Part 142 Flight training syllabuses

|  |  |
| --- | --- |
| Ref | Syllabus |
| 10A1 | **Error! Reference source not found.** |
| 10A2 | RPL Syllabus (A) |
| 10A3 | PPL Syllabus (A) |
| 10A4 | NVFR Syllabus (A) |
| 10A5 | Multi-engine Class Rating Syllabus (A) |
| 10A6 | CPL Syllabus (A) |
| 10A7 | Integrated CPL (A) Ground Training |

### Guide to the use of CASA’s sample Flight Training Syllabuses

#### Introduction

CASA’s sample syllabuses have been developed to demonstrate one method for the incorporation of Part 61 MOS practical flight standards into a syllabus format.

If adopting one or more of the sample syllabuses the content must be customised, where required, to ensure the specific needs of the operator are met. For example, an operator whose training base is located at a controlled aerodrome would amend the recreational pilot licence syllabus to include training for controlled aerodrome and controlled airspace endorsements. Additional details may also be incorporated, for example techniques and standard operating procedures to be used during the training, or specific information relating to the training aircraft.

Operators who elect to use the sample materials remain responsible for maintaining their validity. This means the syllabuses may need review to ensure they align with any future amendments to the Part 61 Manual of Standards, or changes to the regulations.

CASA’s sample syllabuses are presented in hard copy format. Operators may choose to use software based systems to ease the burden of repetitive data entry on lengthy lesson records if desired. In either instance, instructor induction training and operations manual or Exposition instructions should be sufficient to enable satisfactory operation of the recording system.

Guidance regarding methodologies used during development of the sample syllabuses, instructions for the use of syllabus documentation and the assumptions under which each of the sample syllabuses have been developed are provided below.

NOTE: An operator may choose to use CASA’s sample syllabuses; however it is not mandatory to do so. Operators should determine the most appropriate structure for their syllabuses. Sample syllabus document design, the distribution of Part 61 MOS practical flight standards and underpinning knowledge into flight lessons, the competency grading scale, the sequence and number of flight lessons and suggested flight hours are intended as one example.

#### Sample Syllabus Documentation

CASA’s sample syllabus documentation includes

* **A planning matrix**, which is a syllabus design tool for mapping Part 61 MOS competencies into individual flight lessons when planning training and assessment, and for ensuring all required competencies are captured. A planning matrix is not required, however is recommended.

The planning matrix sets out the required MOS practical flight competencies and their integration into individual flight lessons and the sequence of those lessons, the suggested allocation of time to briefings and flight lessons, an example of the use of ‘performance standards’ as a means of monitoring and recording student progress, and planned assessments.

The planning matrix may assist operators who wish to alter CASA’s sample syllabuses to suit their own operation.

A planning matrix may also be beneficial during future syllabus updates, which may be necessary following an internal audit of training outcomes or an amendment to the Part 61 MOS.

* **A syllabus introduction**. Operators may use a syllabus introduction to provide information which is specific to the syllabus, such as the training resources to be utilised for the course or permissible variations to lesson sequences. CASA’s syllabus introductions may be customised to meet an operator’s requirements. Details such as course duration, resources and other operator specific information will need to be populated.
* **A flight training and theory examination summary**, which is a list of flight training lessons and theory exams in planned sequence.
* **A lesson plan and training record** for each flight. The lesson plan and training record is a single document providing a lesson overview, briefing topics, underpinning knowledge items, performance criteria and a means for recording training and assessment outcomes.

Lesson plan and training record forms are provided to illustrate what is considered to be the basic level of content.

These forms may be customised to include operator specific information such as standard operating procedures, techniques and instructions for achieving the required outcomes. Long briefing topics are included as standard practice guidance and may be added to or customised if required.

Lesson plans for briefings and ground theory components are not provided in the sample syllabuses. Operators may choose to develop a standardised set of briefing notes.

The briefing and flight training hours represented in each syllabus are recommended training times, however in practice these may vary (for example due to student progress, continuity of training, weather conditions, aerodrome traffic etc.).

CASA’s sample syllabus documentation for the commercial pilot licence – aeroplane category rating only includes a training plan for the integrated course, and an introduction, planning matrix and lesson plans for the non-integrated course.

NOTE: CASA’s sample syllabus documentation must be read in conjunction with CASR Parts 61 and 141 and the Part 61 MOS.

##### Aeronautical knowledge examinations

The requirement for aeronautical knowledge is that students are able to demonstrate, to the appropriate level, knowledge of the elements, topics and specific content described in Schedule 3 of the Part 61 MOS for the licence, rating or endorsement.

NOTE: Transitioning operators may already have examinations, for instance for radio theory, which have been suitable in the past. These may continue to be utilised provided their content has been reviewed against the MOS aeronautical knowledge standards, and amended if required.

##### Knowledge deficiency reports

The body conducting an aeronautical knowledge examination must prepare a knowledge deficiency report (KDR) if the student passes the examination with a score of less than 100%, or fails the examination with a score of at least 51%.

A KDR lists the Part 61 MOS Schedule 3 knowledge content for which questions were answered incorrectly and re-study is required. The knowledge content is later reassessed orally in order to address the areas of deficiency.

##### Amendments to the sample syllabuses to reflect operational requirements

CASA’s sample syllabuses are based on the scenarios described in the bulleted lists below. Operators choosing to adopt the sample syllabuses must make amendments to ensure their own operational requirements are met.

#### Syllabus Design Assumptions

##### Recreational Pilot Licence (Aeroplane) & Flight Radio Endorsement

* The training base is located at a non-towered aerodrome.
* Written examinations have been planned to assess underpinning knowledge required prior to the first solo and area solo flights.
* A flight radio endorsement aeronautical knowledge examination has been planned in accordance with the aeronautical knowledge standards mentioned in Schedule 3 of the Part 61 MOS.

Operators conducting training from a controlled aerodrome will need to amend the syllabus to include the RPL controlled aerodrome endorsement by incorporating unit ‘CTR - operate at a controlled aerodrome’.

Operators conducting training in controlled airspace will need to amend the syllabus to include the RPL controlled airspace endorsement by incorporating unit ‘CTA - operate in controlled airspace’.

If a flight radio operator endorsement is not required, remove unit ‘C3 - operate aeronautical radio’.

The sample syllabus refers to written examinations for pre-solo and pre-area solo underpinning knowledge assessment. The intent is that these examinations are similar to those currently used by many flight training operators, however it is not mandatory that these assessments are made by written examination.

The sample syllabus refers to an aeronautical knowledge examination for the RPL flight radio endorsement, set by the operator in accordance with the Part 61 MOS aeronautical knowledge standards.

NOTE: The RPL syllabus has been developed taking into account proposed amendments to the MOS. These include minor amendments to performance criteria wording.

##### Private Pilot Licence (Aeroplane) - Assumptions:

* The training base is located at a non-towered aerodrome.
* The first solo navigation exercise is conducted entirely in Class G airspace.
* Students hold an RPL (A) and are able to perform manoeuvres within the flight tolerances specified in Schedule 8 of the Part 61 MOS.

Units of competency C1 to C5, A1 to A6 and IFF, also requirements at RPL level, are included in the sample syllabus for review and assessment to confirm students have maintained competency in these units.

If a student is not able to demonstrate competency in these units in accordance with the syllabus schedule, additional training and assessment is required.

NOTE: The PPL syllabus has been developed taking into account proposed amendments to the MOS. The unit ‘RNE’ will be removed as a requirement for the PPL.

##### Retractable Undercarriage and Manual Propeller Pitch Control Design Feature Endorsements

* Students hold a PPL (A).

In addition to demonstrating competency in the units of competency DFE2 and DFE3, students must meet the general competency requirement of CASR *61.385* prior to exercising the privileges of their pilot licence within the aeroplane. The sample syllabus provides an example of items which may be included during endorsement training in order to meet the general competency requirement, however training providers must determine the most appropriate inclusions when considering the aeroplane complexity, operating procedures and limitations.

##### Multi-engine Aeroplane Class Rating

* Students already hold design feature endorsements for retractable undercarriage and manual propeller pitch control (piston engine).
* An aeronautical knowledge examination has been planned in accordance with the aeronautical knowledge standards mentioned in Schedule 3 of the Part 61 MOS.

##### Night VFR Rating – single engine aeroplane night VFR endorsement

* An aeronautical knowledge examination has been set in accordance with the aeronautical knowledge standards mentioned in Schedule 3 of the Part 61 MOS.

The night VFR rating aeronautical knowledge examination is not mandatory; however students must demonstrate knowledge of the content described in Schedule 3 of the Part 61 MOS for the rating. In the sample syllabus scenario, a written examination has been set to determine students hold this knowledge.

##### Commercial Pilot Licence (Aeroplane) (non-integrated training)

* The training base is located at a non-towered aerodrome.
* Training is commenced in a C172 prior to moving into the PA-28R Arrow, to meet the scenario for CASA’s Part 141 sample operations manual and Part 142 sample exposition. *(It is not a requirement that the CPLA flight test be conducted in an aeroplane equipped with a retractable undercarriage)*.

Prior to course commencement an assessment flight may be undertaken with either the HOO or nominated senior instructor. Adjustments to the training plan may then be made to ensure the student’s training needs are met, based upon their aeronautical experience and current competency.

For students who do not already hold a design feature endorsement for manual propeller pitch control, training for this and the retractable undercarriage endorsement is provided following lesson 6. *(The placement of this training is intended to be flexible)*.

Many instructional elements are introduced into the syllabus performance standard 2, assuming expected prior experience and knowledge. If a student is not able to demonstrate competency to performance standard 2 in these instructional elements, additional training and assessment is required.

NOTE: Although related elements and performance criteria have not been included in every lesson plan and training record form for each sample syllabus, it is expected that instructors will continually monitor human factors and non-technical skills awareness and application, making record in the ‘comments and outcome’ box when required.

### RPL Syllabus (A)

>> Insert syllabus here <<

### PPL Syllabus (A)

>> Insert syllabus here <<

### NVFR Syllabus (A)

>> Insert syllabus here <<

### Multi-engine Class Rating Syllabus (A)

>> Insert syllabus here <<

### CPL Syllabus (A)

>> Insert syllabus here <<

### Integrated CPL (A) Ground Training

>> Insert syllabus here <<