Australian Government
Civil Aviation Safety Authority

Annex 21

Part 141 Certificate and Part 142 (Simulator only)

Note: Authorisation Holders that conduct something other than training only should be guided by Annex 3 – Flight Operations.

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Approval Tier	Three
Owner	National Manager Surveillance
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Introduction

This annex is an integral part of the CASA Surveillance Manual (CSM), which should be referenced at all times. To allow for more frequent revisions, this annex can be updated independent of the CSM and other annexes. The process of updating this annex requires verification and approval from its owners and sponsors, as well as from Coordination and Safety Systems (CSS). An updated version can only be published once CSS has finalised the format, with the latest revision history data included in the revision table.

Revision history

Revisions to this manual are recorded below in order of most recent first.

Version no.	Date	Parts / sections	Details
1.2	April 2023	Table 4: Operations; Fuel Policy	Prompts moved to Training Infrastructure: • Notification to flight crew • Record retention • Computer software/hardware reliability and validity
		Table 5: Safety Policy	Removed all elements aside from Safety Policy and added (Part 141)
		Table 5: Cargo and Passengers	Table removed. Aircraft Load Control element moved to Table 6: Training
		Table 6: Training	Addition of Quality System element
1.1	October 2022		Addition of Aircraft - Airworthiness Assurance
			Additional of Training - FSTD
			Removal of Training Management - FSTD
1.0	December 2021	All	Initial Issue

1 Overview

This annex provides instructions for conducting surveillance of Part 141 Certificate Operators and Part 142 B Simulator only Operators.

CASR Part 141 (recreational, private, and commercial pilot flying training other than some integrated courses)

CASR Part 142 Simulator Operators (integrated and multi-crew flying training and contracted recurrent training and checking).

This annex contains information relating to the following:

- Systems and Elements
- Systems and Elements – Health Checks
- Surveillance Currency Guide
- Information Sources.

2   Systems and Elements: Part 141 and Part 142

The audit technique involves assessing the documented system and comparing it against the actual system processes. The system is assessed for compliance and sampling conducted as appropriate. The assessment of the system and its risks is achieved by a questioning technique using the four attributes (12 components) of Management System Model (MSM), see CSM Sections 3.3.3 System attributes – Management System Model and Section 3.3.3.1 – Systems attributes (table). The CASA description of a Part 141 or Part 142 consists of four systems incorporating 19 elements.

Table 1: System and Elements System

	Element	Ref Table
Aircraft (Turbine Powered Aircraft only) - FSTDs	Line Servicing	Table 2
	Airworthiness Assurance	
	Airworthiness Control	
	Maintenance System	
Operational Personnel	Operational Standards	Table 3
	Personnel Standards	
	Fatigue Management (Flight Crew) – CAO 48.1 Appendices 1-6	
	Fatigue Risk Management System (FRMS) – CAO48.1 Appendix 7	
Operations	Operational Support Systems	Table 4
	Authorised Activities	
	Fuel Policy	
Safety Policy (Part 141 only)	Safety Policy	Table 5
Training Part 142	Training Management	Table 6
	Training Infrastructure	
	Flight Testing	
	Theory Examination	
	Qualifications and authorisations (instructor, examiner, and support staff)	
	Flight Simulator Training Devices (FSTD)	
	Quality System	

Table 2: Aircraft Elements

SYSTEM:	Aircraft (Turbine Powered Aircraft only) FSTDs
ELEMENT: Line Servicing	
This element contains the systems and processes for ensuring the appropriate activities are conducted to ensure the aircraft is serviced for flight.	
Prompts	
Line maintenance	Replenishing
Cleaning	Authorised maintenance support equipment
Fuelling	Towing
ELEMENT: Airworthiness Assurance	
This element contains the systems and processes for ensuring the aircraft is Airworthy and fit for service. This is accomplished primarily through the authorisation holder's internal audit processes and closes the loop on the maintenance system.	
Prompts	
Audit	Aircraft
Maintenance	Locations
Aircraft documentation	
ELEMENT: Airworthiness Control	
This element contains the systems and processes for achieving the "how" maintenance activities are conducted and "who" completes the maintenance activities.	
Prompts	
System of release to service	Contractual arrangements
Defect information	Operational equipment
Airworthiness directives	MEL/CDL deferred maintenance
Maintenance control manual (Class A aircraft)	Aircraft cross hire agreement
ELEMENT: Maintenance System	
This element contains the systems and processes for identifying "what" maintenance activities are required to be done as well as "when" the maintenance activities are to be completed.	
Prompts	
Aircraft specialised operations	Safety equipment
Reliability program	Maintenance release/Technical log
System of Maintenance (SOM) - Approved Maintenance Program (AMP)	

Table 3: Operational Personnel Elements

SYSTEM:	Operational Personnel
ELEMENT:	**Operational Standards**

Operational Standards are a vital element of the system required to maintain safe operations through the establishment of an appropriate set of systems (includes an appropriate organisational structure) to accommodate induction, check to line, upgrade training (where applicable).

Prompts

CEO	Quality assurance personnel
Head of Operations	Ground crew
Quality manager	Operational support and admin staff
Maintenance controller	Flight examiners
Flight instructors	Ground instructors

ELEMENT:	**Personnel Standards**

Personnel Standards are a vital element of the system required to maintain safe operations through the establishment of an appropriate set of systems (where applicable) and a system for dealing with unacceptable performance. The standards of personnel, including third-party providers is required to be documented detailing qualifications, training and any other requirements.

Prompts

Induction training procedures	Remedial training procedures
Standardisation and proficiency procedures	Quality assurance personnel
Personnel licensing requirements	Key personnel responsibilities

ELEMENT:	**Fatigue Management (Flight Crew) - CAO 48.1 Appendices 1-6**

The Fatigue Management element is designed to audit compliance with CAO 48.1 Appendices 1 to 6 and minor variation approvals. Safe operations rely on proactive management of fatigue risks and hazards

Prompts

Roster production	Fatigue management
Records and Reports	Fatigue training
Fatigue hazard and identification and mitigation processes	Enhanced obligations (Appendices 2-6) (Part 141 only)
FCM fatigue monitoring	Minor Variation conditions
Sleep opportunity assurance	Appendix selection
Sustenance	

SYSTEM:	Operational Personnel (cont.)
ELEMENT:	**Fatigue Risk Management System (FRMS) - CAO 48.1 Appendix 7**

An FRMS approval allows an operator to establish bespoke fatigue limits in excess of those allowable under another appendix to CAO 48.1. fatigue hazard identification, mitigation, monitoring. assurance and promotion procedures all form the basis of an effective risk management system for safe operations.

Prompts

Change management procedures	Practical operating procedures
FCM fatigue monitoring	Sustenance
Data acquisition and analysis	Safety Assurance procedures
Use of Biomathematical Model	Safety promotion procedures
Fatigue Training	Records and Reports
Hazard identification, risk assessment and mitigation procedures	

Table 4: Operations Elements

SYSTEM: Operations	
ELEMENT: Operational Support Systems	
This element contains the authorisation holder's systems and processes that support the conduct of Part 141 and Part 142 Operations. The authorisation holder system to provide crews/students with the published data and procedures necessary to achieve compliance with performance requirements.	
Prompts	
Provision of Performance data	Flight planning and preparation
Training aerodromes and associated training areas	Charts (training area, low flying area, aerobatic area)
Operational library	Records management
Training aids	Training programming
Record storage and archive	Scheduling practices
ELEMENT: Authorised Activities	
The AOC Operations element addresses the systems that ensure the authorisation holder contains its operations to those authorised by legislation.	
Prompts	
Authorised scope of activities	Certificate conditions
ELEMENT: Fuel Policy	
This element addresses the current or proposed policy the authorisation holder has in place to comply with the requirements of CASR 91.455, 138.285, 135.355, 133.190 and 121.235 and associated amendments. This is achieved through a review of the relevant sections of the authorisation holder's Operations Manual or separately submitted fuel policy.	
Prompts	
Aircraft specific fuel data	In-flight fuel management
Fuel planning requirements	Variable fuel requirements
Fuel reserves	Fuel policy risk assessment
Supplementary fuel	

Table 5: Safety Policy Elements

SYSTEM: Safety Policy (Part 141 only)	
ELEMENT: Safety Policy	
This element contains the systems and processes that ensure effective governance to support the safety management that is in place, including processes for the review and update of the authorisation holder's management and commitment.	
Prompts	
Description of operators Safety policy	Safety objectives/ Safety performance indicators
Continuous improvement process	Safety policy training

Table 6: Training Part 142 Elements

SYSTEM:	Training Part 142
ELEMENT:	**Training Management**

This element contains the authorisation holder's systems and processes for the management of training.

Prompt

Training prerequisites	Training syllabus
Training plan	Training delivery
Training assessment	Training system performance
Remedial training	Change management process
Training records management	Internal audit
Continuous improvement	Temporary locations
Flight school students	Training flights authorisation
Recommendation and/or issue of authorisations (internally)	

ELEMENT:	**Training Infrastructure**

This element describes the suitability of the authorisation holder's infrastructure to support the delivery of the Part 141 and 142 training operations.

Prompt

Aircraft suitability for purpose	Facilities and equipment
Flight simulation training devices	Briefing rooms
Classrooms	Exam facilities and security
Temporary locations	Computer software/hardware reliability and validity (For example load control software)

ELEMENT: Flight Testing	
This element contains the authorisation holder's systems and processes for the conduct of flight tests and assessments.	
Prompt	
Recommendations and prerequisites	Competency
Management of candidate's assessments	Flight test notification
Appropriate assessment devices	Construct of the assessment exercise
Exam bank management	Aircraft configuration
Trim sheet production	Cargo and baggage restraint
Load distribution	
ELEMENT: Theory Examination	
This element describes the systems that make up the control of all systems associated with the conduct of examinations of students under the control of the authorisation holder. In some circumstances this may be extended to staff who are required to undertake periodic examinations. The documented system should account, but is not limited to, the control of personnel supervising examinations and undertaking examinations, conduct of practical tests and assessments and control and issue of certificates. The exam structure should ensure that the relevant syllabus items are covered, that the marking key is appropriate, with multiple choice answers, that the distractors are reasonably realistic; that where a computer-generated question paper is used that there are processes to prevent the same questions recurring.	
Prompt	
Organisation of examinations	Examination facilities
Exam structure	Coverage of syllabus, marking key
Conduct	Basic/Type practical assessments
Inappropriate practices	Alternate locations
Examination assessment, including processes to manage examination failure	Measures to detect/prevent cheating or inappropriate collaboration
Issue of certificates	Compliance with regulatory standards

ELEMENT: Qualifications and authorisations (instructor, examiner, and support staff)	
This element contains the authorisation holder's systems and processes to manage the instructional and examining standards (includes HF/NTS, key personnel training etc.).	
Prompts	
Competency management	Personnel training records
Recency	Instructor standardisation and proficiency
Licensing	HF/NTS
Induction	
ELEMENT: Flight Simulator Testing Devices (FSTDs)	
This element contains the authorisation holder's systems and processes for FSTDs	
Prompt	
Quality System (FSTD only)	Certification
Fidelity	Suitability
Training syllabus	
ELEMENT: Quality System	
This element contains the authorisation holder's systems and processes for Quality Systems	
Quality System	Quality Policy
Management Responsibility	Document Control
Resource Allocation	Quality Procedures
Internal Audit	Continuous Improvement

2.1 Health Check

Health check mandatory elements are available on the CASA Intranet. Details of the current mandatory elements for each authorisation type are published separately to the CASA website.

3 Surveillance Currency Guide: Part 141 (Certificate only) and Part 142 (Certificate Simulator only)

Table 8: Surveillance Currency Guide

Surveillance level	Type	Elements
Level 1	Systems Audit	Systems, Risks and Compliance
	Health Check	Specific Elements, Risks and Compliance
	Post-authorisation Review	Entry Control Elements
Level 2	Operational Check	E.g. Flight Deck Observation, Ramp check

Note: Surveillance intervals are determined by the National Surveillance Selection Process (NSSP). Refer to the NSSP planned surveillance schedule for further information regarding surveillance intervals.

4 Information Sources

The following is a non-exhaustive list of information sources that can be accessed to support the assessment of an authorisation holder:

- surveys
- third-party audits
- regulatory history, findings (Safety Findings and Safety Observations)
- past Surveillance Reports and findings (Safety Findings and Safety Observations)
- EAP information
- Defect Report Service (DRS)
- Regulatory Service activity
- information gathered by the authorisation holder
- external information gathered from industry or other government agencies
- Enforcement action
- past accident/incident history
- risk management plans provided by the authorisation holder.

A large portion of this information is available to the surveillance team and authorisation management team via the Data Warehouse using the Power BI application.

Note: For advice on where and how to access required information refer to CSM Chapter on – Information Capture and Access.