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ADVISORY CIRCULAR
AC 91-22 v2.2

Aircraft checklists

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Acknowledgement of Country

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and their continuing connection to land, water and community, and pays respect to Elders past, present and emerging.

Artwork: James Baban.

Advisory circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Advisory circulars should always be read in conjunction with the relevant regulations.

Audience

This advisory circular (AC) applies to:

- aircraft operators
- aircraft owners
- aircraft crew.

Purpose

This AC provides guidance on establishing and using aircraft checklists.

For further information

For further information, contact CASA's Operations Standards (telephone 131 757).

Status

This version of the AC is approved by the National Manager, Flight Standards Branch.

Note: Changes made in the current version are annotated with change bars.

Table 1: Status

Version	Date	Details
v2.2	October 2026	New content added to sections 3.6, 3.7 and 3.9 regarding operator consideration of FMS cross-check checklist content and operator consideration of accident and incident reports when developing checklists.
v2.1	December 2024	Updated exemption and direction titles and references. Minor editorial updates for clarity.
v2.0	November 2021	This version significantly changes the majority of the AC. These changes have arisen from a legislative adjustment due to a new exemption contained within CASA EX81/21 relating to regulation 91.095 and compliance with flight manuals, and multiple stakeholder queries regarding checklist design.
v1.0	July 2021	This AC is a new issue AC, applicable for Part 91 commencing 2 Dec 2021.

Unless specified otherwise, all subregulations, regulations, Divisions, Subparts and Parts referenced in this AC are references to the *Civil Aviation Safety Regulations 1998 (CASR)*.

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1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Table 2: Acronyms

Acronym	Description
AC	advisory circular
AFM	aircraft flight manual
AFMI	aircraft flight manual instructions
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998*
EFB	electronic flight bag
FCOM	flight crew operating manual
FMS	flight management system
IFR	instrument flight rules
MTOW	maximum take-off weight
NAA	national aviation authority
NVIS	night vision imaging system
PF	pilot flying
PIC	pilot-in-command
PM	pilot monitoring
PNF	pilot not flying
POH	pilot operating handbook
QRH	quick reference handbook
VFR	visual flight rules

1.2 Definitions

Terms that have specific meaning within this AC are defined in the table below. Where definitions from the civil aviation legislation have been reproduced for ease of reference, these are identified by 'grey shading'. Should there be a discrepancy between a definition given in this AC and the civil aviation legislation, the definition in the legislation prevails.

Table 3: Definitions

Term	Definition
aircraft checklist	means a concise compilation of the operating procedures published in an aircraft flight manual. This may be limited to normal procedures or may contain abnormal and emergency procedures.
flight	means: • in the case of a heavier-than-air aircraft, the operation of the aircraft 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 being airborne; and • in the case of a lighter-than-air aircraft, the operation of the aircraft from the moment when it becomes detached from the surface of the earth or from a fixed object on the surface of the earth until the moment when it becomes again attached to the surface of the earth or a fixed object on the surface of the earth.
operator	Operator, of an aircraft, means: • if the operation of the aircraft is authorised by an AOC, a Part 141 certificate or an aerial work certificate—the holder of the AOC or certificate; or • otherwise—the person, organisation or enterprise engaged in aircraft operations involving the aircraft.

1.3 References

Legislation

Legislation is available on the Federal Register of Legislation website https://www.legislation.gov.au/

Table 4: Legislation references

Document	Title
Regulation 91.245	Matters to be checked before take-off
Regulation 121.070	Availability of checklists
Regulation 133.040	Availability of checklists
Regulation 135.050	Availability of checklists
Regulation 138.215	Availability of checklists
Regulation 91.095	Compliance with flight manual
Regulation 121.055	Compliance with flight manual
Regulation 133.030	Compliance with flight manual

Document	Title
Regulation 135.040	Compliance with flight manual
Regulation 138.210	Compliance with flight manual
CASA EX67/24	Section 5 of the Part 91 of CASR – Supplementary Exemptions and Directions Instrument 2024
CASA EX69/24	Section 25 of the Part 121 and Part 91 of CASR – Supplementary Exemptions and Directions Instrument 2024
CASA EX70/24	Section 20 of the Part 133 and Part 91 of CASR – Supplementary Exemptions and Directions Instrument 2024
CASA EX71/24	Section 18 of the Part 135, Subpart 121.Z and Part 91 of CASR – Supplementary Exemptions and Directions Instrument 2024
CASA EX72/24	Section 15 of the Part 138 and Part 91 of CASR – Supplementary Exemptions and Directions Instrument 2024

Advisory material

CASA's advisory materials are available at https://www.casa.gov.au/publications-and-resources/guidance-materials

Table 5: Advisory material references

Document	Title
AC 21-34	Aircraft flight manuals
AMC/GM Part 91	Acceptable Means of Compliance / Guidance Material
AMC/GM Part 121	Acceptable Means of Compliance / Guidance Material
AMC/GM Part 133	Acceptable Means of Compliance / Guidance Material
AMC/GM Part 135	Acceptable Means of Compliance / Guidance Material
AMC/GM Part 138	Acceptable Means of Compliance / Guidance Material

International Civil Aviation Organization documents

International Civil Aviation Organization (ICAO) documents are available for purchase from http://store1.icao.int/

Many ICAO documents are also available for reading, but not purchase or downloading, from the ICAO eLibrary (https://elibrary.icao.int/home).

Table 6: ICAO references

Document	Title
ICAO Annex 8	Airworthiness of Aircraft

Other references

Table 7: Other references

Document	Title
CS-23/FAR-23	EASA or FAA Airworthiness standards – normal category aeroplanes
CS-25/FAR-25	EASA or FAA Airworthiness standards – transport category aeroplanes
CS-27/FAR-27	EASA or FAA Airworthiness standards – normal category rotorcraft
CS-29/FAR-29	EASA or FAA Airworthiness standards – transport category rotorcraft
CS-VLA	EASA Certification Specification for very light aeroplanes
CS-VLR	EASA Certification Specification for very light rotorcraft designed to carry not more than 2 occupants
FAA	GAMA Specification No. 1
EASA OSD	Common Procedure Document available on the EASA website
FAA AC 25.1581-1	Airplane Flight Manual
FAA AC 27-1B	Certification of Normal Category Rotorcraft
FAA AC 29-2C	Certification of Transport Category Rotorcraft
CS-23/FAR-23	EASA or FAA Airworthiness standards – normal category aeroplanes

2 General

2.1 Introduction

2.1.1 This AC provides information to assist in the preparation of aircraft checklists and procedures for checklist use.

2.1.2 Whether operating simple or complex aircraft, human components are an ever-present risk to safety. Despite diligence and competence, circumstances can conspire to cause a procedural lapse or error; possibly leading to an incident or accident. The correct use of aircraft checklists, which depends on the use of valid checklists and effective procedures, is a strong defence against human error. Unfortunately, aircraft accident reports often implicate the incorrect or non-existent use of checklists as a cause.

2.2 Legislation

2.2.1 Regulation 91.095

2.2.1.1 The requirements for aircraft checklists are derived from regulation 91.095. The regulation requires the pilot in command (PIC) to operate an aircraft in compliance[1] with the aircraft flight manual instructions.

Note: The term *aircraft flight manual instructions* is defined in the CASR Dictionary as meaning the following documents and information provided by the aircraft's manufacturer [2]:

a. the aircraft's flight manual

b. checklists of normal, abnormal and emergency procedures for the aircraft

c. any operating limitation, instructions, markings and placards relating to the aircraft.

2.2.1.2 For simplicity in this document, aircraft flight manual instructions are referred to as 'aircraft flight manual' or 'flight manual'.

2.2.1.3 On review, regulation 91.095 was found to incorrectly express the intended policy objectives. A correcting amendment will be made in a future set of regulation amendments to Part 91. To ensure the intended policy outcomes remained in place after the commencement of Part 91, which occurred on 2 December 2021, an exemption and direction contained within the instrument CASA EX67/24, are in place.

Note: Regulation 91.035 provides that regulation 91.095 does not apply to operations conducted under Parts 133 and 138. These parts contain provisions[3] similar to regulation 91.095, requiring compliance with aircraft flight manual instructions except for certain circumstances as specified in the applicable MOS.

[1] Subregulation 91.095 (2) also requires the PIC to comply with any conditions specified in the aircraft's certificate of airworthiness or special flight permit.

[2] Or issued in accordance with a Part 21 approval.

[3] Under regulations 133.030 and 138.210.

2.2.2 CASA EX67/24 – exemption and direction relating to regulation 91.095

2.2.2.1 The exemption in section 21 of EX67/24 and the direction in section 5 of EX67/24 change the effect of regulation 91.095 in two ways.

2.2.2.2 Firstly, the direction changes *'when'* a PIC must comply with the flight manual, from only being the time the aircraft is in flight (which is defined in the Act - see the definitions at the front of this AC), to being all of the following:

- in-flight
- on the ground prior to the beginning of a flight
- after the end of a flight.

> **Note:** Unsafe conditions may be created if an aircraft is not operated at all times in accordance with the flight manual requirements and limitations.

2.2.2.3 Secondly, the exemption changes '*what'* a PIC must comply with, i.e., which particular pieces of a flight manual. As written, regulation 91.095 requires compliance with **all content** of the aircraft flight manual instructions. Compliance with all content of the flight manual instructions was unintended, as not all content applies to the operation of an aircraft, (e.g., the sections on maintenance, handling or systems description). Also, not all content is approved by an airworthiness certification authority. This means a flight manual consists of approved and unapproved parts. Unapproved parts are included as recommendations or guidance and are not mandatory.

2.2.2.4 The exemption limits compliance to the *requirements and limitations* mentioned in aircraft flight manual instructions. The expression *requirement or limitation* applies to approved flight manual information.

2.2.2.5 While the direction only applies to the PIC, under other CASR Parts[4], an operator of an air transport or aerial work aircraft must provide aircraft crew members with the aircraft checklists. Although not mandatory for operators[5] of Part 91 aircraft, checklists should be made available to the PIC. If an operator does not do so, the PIC is still required to comply with the direction. Guidance for the preparation of aircraft checklists is included in this document.

2.3 Aircraft flight manuals

2.3.1 Introduction

2.3.1.1 The International Civil Aviation Organization (ICAO) Annex 8 requires each aircraft be provided with a flight manual, placards or other documents stating the approved limitations within which the aircraft is considered airworthy by the applicable airworthiness certification standard. The manual must also contain additional instructions and information necessary for the safe operation of the aircraft. These include operating procedures and performance data. Airworthiness certification standards also specify which parts of a flight manual must be approved by the certifying authority.

[4] Regulations 121.070, 133.040, 135.050 and138.210

[5] Refer to section 1.2 of this AC - 'Definitions', for a meaning of the term 'operator' or 'aircraft operator'.

Note: Aircraft flight manuals are identified by a part number specified in the type certificate data sheet for the aircraft.

2.3.1.2 Depending on the relevant airworthiness certification standard, a flight manual may be known by other names. For example, for FAA[6] certified aeroplanes up to 5700 kg MTOW and manufactured in 1976 or later, the flight manual is titled Pilot's Operating Handbook [7]. Some may include the sub-title 'FAA Approved Airplane Flight Manual'. Flight manuals complying with older airworthiness standards may be titled Owner's Handbook or Owner's Manual.

2.3.1.3 Aircraft certificated under special categories or under early certification requirements, may not have a flight manual [8]. In such cases, the information required to safely operate the aircraft is published on fixed placards visible to the PIC. Examples of such aircraft are:

- aircraft up to a maximum take-off weight (MTOW) of 2 722 kg manufactured and flown prior to 1 March 1979
- historic and ex-military aircraft
- amateur-built aircraft
- experimental aircraft
- ultralight aircraft.

2.3.1.4 With the development of more complex aircraft and equipment, manufacturers and some operators introduced separate operating manuals known as flight crew operating manuals (FCOM) or quick reference handbooks (QRH). FCOM describe in detail, the characteristics and operation of the aeroplane and its systems. When procedures are provided by the manufacturer in a document other than the flight manual, a statement is placed in the appropriate procedures section of the flight manual, referencing where the detailed procedures information can be found.

2.3.1.5 QRH typically include checklists for normal, abnormal and emergency procedures. The format is intended to improve efficiency of use of checklists. Although FCOM and QRH contain approved flight manual information, these sources are not approved flight manuals.

2.3.2 Aircraft operating procedures

2.3.2.1 A procedure is a step-by-step method for accomplishing a specific task. Aircraft operating procedures are designed by the aircraft manufacturer as step-by-step instructions for operating the aircraft safely.

2.3.2.2 Separate sections of a flight manual are dedicated to 'normal', 'abnormal' and 'emergency' procedures. Normal procedures apply when aircraft systems are serviceable and functioning normally. Abnormal procedures are corrective actions for managing a failure of a system or component and are intended to maintain an acceptable level of airworthiness for continued safe flight and landing. Emergency procedures apply when flight crew action, usually immediate, is required to protect the aircraft and occupants from serious harm or catastrophe. An emergency procedure may indicate that actions should be performed immediately, and if so, expeditious action is best performed from memory. Immediate actions are typically identified by bold font or boxed text.

2.3.2.3 Although aircraft operating procedures may be presented as narrative, the checklist format designed for use by flight crew, is the standard for most modern aircraft.

[6] Federal Aviation Administration of the USA

[7] GAMA Specification No. 1

[8] Refer to AC 21-34 - Aircraft flight manuals – Appendix A

2.3.3 Airworthiness standards

2.3.3.1 Airworthiness standards for a large portion of the Australian registered aircraft fleet[9], are prescribed in Parts 23, 25, 27 and 29 of CASR. These parts identify and subsume the legislation for airworthiness standards of the two major certifying authorities; the Federal Aviation Administration (FAA) and the European Union Aviation Safety Agency (EASA). The standards prescribe the information an aircraft manufacturer must include in an aircraft flight manual, and also prescribe the information to be approved by the certifying authority.

2.3.4 Required and approved information

2.3.4.1 The FAA and EASA airworthiness standards [10] for normal and transport category aircraft, require flight manuals to contain at least:

- aircraft operating limitations
- normal, abnormal and emergency operating procedures
- performance information
- loading information.

2.3.4.2 Other than the following exception, all required flight manual information must be approved by the certifying authority. The exception is that for the following aircraft, only aircraft operating limitations must be approved:

- FAR Part 23 low speed aeroplanes[11] with less than 7 passenger seats
- CS-23 piston engine aeroplanes with a maximum weight of 2722 kg or less.

2.3.4.3 When approval is only required for aircraft operating limitations, the remainder of flight manual content such as aircraft operating procedures, is unapproved and is for guidance only. Under CASA EX67/24 mentioned above, only approved parts of a flight manual are the *requirements and limitations* subject to operational compliance.

2.3.4.4 Flight manual information approved by the FAA or EASA is identified within the manual by notations such as “FAA/AUTHORITY approved” or “EASA Approved”. on each page.

2.3.5 Approved operating procedures

2.3.5.1 Approval of flight manual operating procedures by a certifying authority, does not necessarily imply inflexible adherence to approved material. Both the FAA and EASA permit operator development of equivalent operating procedures. For example, FAA policy requires[12] a notation similar to the following, to be placed at the beginning of a flight manual operating procedures section:

The operating procedures contained in this manual have been developed and recommended by the manufacturer and approved by the FAA for use in operating the aircraft. These procedures are provided for guidance in identifying acceptable procedures for safe operation, and FAA approval should not be construed as prohibiting the operator, based on operational experience with the aircraft, from developing equivalent procedures in accordance with the applicable operating rules.

[9] Not including sailplanes and balloons which are certified under Part 22 and Part 31 respectively.

[10] FAA FAR: 23, 25, 27, 29 or EASA CS: VLA, VLR, 23, 25, 27, 29.

[11] V_{MO} less than 250 kt.

[12] AC 25.1581 para 2c, AC 27-1B regulation 1585 and AC 29-2C regulation 1585.

2.3.5.2 A caveat[13] to the FAA policy may state that when alternate procedures are used, full responsibility for compliance with applicable airworthiness safety standards rests with the operator.

2.3.5.3 EASA policy is similar. EASA's Acceptable Means of Compliance (AMC) cite related FAA Advisory Circulars as adopted material. For example, CS-VLR[14] AMC states '*The AMC consists of the applicable parts of FAA AC 27-1B Change 4 dated 1 May 2014'*. This means EASA has adopted the FAA policy of permitting an operator to develop equivalent procedures.

2.3.5.4 Equivalent policy applies to Australian aircraft operators as CASR airworthiness standards subsume the standards of the FAA and EASA. The legislative requirement to comply with the requirements and limitations of AFMI, effected through the direction in CASA EX67/24, may be met by the use of equivalent procedures and checklists, provided standards for airworthiness are maintained, and approved aircraft operating limitations are complied with.

[13] AC 27-B section 27.1585.

[14] Certification Specification for very light rotorcraft designed to carry not more than 2 occupants.

3 Checklists

3.1 Introduction

3.1.1 Aircraft operating procedures presented in narrative form are unsuitable for use in aircraft. A more suitable presentation style is the checklist format which offers advantages of convenience, efficiency and safety.

3.1.2 Procedural checklists serve two functions; firstly, the listing of procedural steps; and secondly, a means for confirming correct completion of procedural steps. To fulfil these functions safely, aircraft checklists need to be accurate and be presented in a suitable format.

3.1.3 Separate procedural manuals such as FCOM or QRH may be offered to operators by aircraft manufacturers or other third parties. When FCOM or QRH are not available, an aircraft operator or PIC should ensure suitable checklists based on flight manual operating procedures, are available for each aircraft operated. For further information about preparation of aircraft checklists, please refer to section 3.6 *'Producing aircraft checklists'.*

3.2 Use of checklists

3.2.1 Under the CASR flight operations regulations[15], an offence of strict liability applies when an aircraft is not operated in a way that meets the *requirements and limitations* of the flight manual. The obligation applies to an aircraft operator conducting air transport or aerial work operations, and to the PIC of an Australian registered aircraft operating under any of the CASR parts. To ensure the obligation is met, sufficient preparation for compliance should be completed in the flight planning stage.

3.2.2 As well as ensuring access to a valid set of aircraft checklists, consideration should be given to matters including, but not limited to, 'how' and 'when' checklists are to be used. For example:

- Are normal procedure checklists to be used as a 'worklist' or as a 'checklist'?
  - When used as a worklist, each procedural action is sequentially completed in accordance with the checklist, either by reference to the checklist or from memory.
  - When used as a checklist, all procedural actions are completed in accordance with a pre-determined sequence or 'flow' across the cockpit and followed by confirmation of correct completion by reference to the checklist.

Note Contemporary checklist practice, suitable for both single pilot and multi-crew operations, favours the 'checklist' method for normal procedure checklists.

- Abnormal and emergency procedure checklists are usually completed through use of the 'worklist' method; unless checklist items require immediate actions to be completed from memory.
- All emergency actions requiring immediate completion should be identified and committed to memory.
- An *'identify and confirm'* protocol should be established and applied before actioning safety critical controls.
- Definition of checklist initiation and completion limits e.g., before landing checklist to be completed by mid-downwind.

[15] Regulations 91.095 (and CASA EX67/24), 121.055, 133.030, 135.040 and 138.210.

- The procedure for recommencement of a checklist when completion is interrupted.
- Crew competency. Both single pilot and multi-crew operations require specific knowledge and skills to ensure error-free use of checklists:
  - single pilot operations will predominantly use memorised checklists (for additional information refer to section 3.3 of this AC)
  - multi-crew operations will predominantly use challenge and response checklist procedures (for additional information refer to section 3.4 of this AC).
- Competency in using electronic or mechanical checklists where fitted.
- Checklists stowed securely and with provision for ease of access. Handling and access should be optimised for single pilot operations, particularly when unaided by auto-pilot.
- Ensuring that checklists will be sufficiently legible under all anticipated light conditions.
- Techniques for ensuring lookout and situational awareness are not compromised during checklist use.

Note: Chapter 10 of the Part 91 MOS for regulation 91.245, prescribes checks to be carried out before take-off that relate to mandatory flight planning, documentation and aircraft equipment checks.

3.2.3 All aircraft operations are susceptible to adverse events – with many attributable to human factors. The severity of an adverse occurrence may be compounded if instructions for checklist use are not well designed, proven and documented, or if crew members are not effectively trained in their use. The instructions should evolve from sound operator policy and be developed systematically in consultation with senior flight crew. The instructions should account for all relevant operational factors such as crew composition, aircraft type, flight rules and terrain proximity.

3.2.4 While air transport and aerial work operators have direct obligations for crew competency, including competency in checklist use, PIC of aircraft operated under Part 91 should also ensure safe use of checklists by establishing personal practices and policies for checklist use, and by periodic review of knowledge and skills.

3.3 Memorised checklists

3.3.1 Physical handling of checklists is not practical when safe flight demands the use of both hands to control the aircraft e.g., single pilot low level operations including aerial application or stock mustering, and all single pilot operation of helicopters not equipped with autopilot. In circumstances when continuous lookout is vital, and unless audio annunciation of checks is available, checklists should be completed from memory. In such circumstances, it is critical that heightened risks are controlled through faultless and proven procedures and crew competence.

3.3.2 Competency in checklist use, particularly from memory, is fundamental to flight safety and should be included in initial and recurrent training and checking[16]. To assist crew members in refreshing knowledge of checklists, aircraft operators should supply each crew member with controlled copies of checklists for personal use.

3.3.3 Operators should also determine if copies of checklists (additional to crew member copies) are to be assigned to and retained in each aircraft. In all circumstances, document control is essential and needs to be managed systematically to maintain the integrity of checklists and the distribution process.

[16] For example, an operator can make this a required element of the operator proficiency check.

3.4 Challenge and response checklist procedures

3.4.1 Challenge and response procedures apply to multi-crew operations, where checklist items are called by one crew member and either checked or completed by another. Common methods can be described as either a 'worklist' or 'checklist'. Refer to paragraph 3.2.2 for information about these methods.

3.4.2 Correct use of the procedures promotes workload reduction and improved situational awareness.

3.4.3 Efficient and safe use of challenge and response procedures depends on detailed protocols defining who does what, when and how. These involve the definition of crew member responsibilities, related tasks, actions and phraseology. Consideration should be given to:

- Standard phrases for:
  - initiating a checklist
  - challenge and response
  - completion of a checklist
  - deferring a check
  - error alerting
  - halting an action.
- The sequence of actions and calls for actioning a line item. These are influenced by crew configuration or operational circumstances. Different protocols apply to normal, abnormal and emergency checklists
- The level of detail necessary for accurate delivery of checklist actions, is indicated in the examples below. Examples are:
  - Normal checklists:
    - » To initiate, the pilot flying (PF) calls for a checklist by announcing the checklist title, such as 'before landing checklist'.
    - » To execute, the pilot monitoring (PM) responds by reading the checklist title and calls the first line item - for example, 'landing gear'. With the PM observing, the PF completes the required action and reports the outcome - for example, *'landing gear down'*.
    - » If satisfied, the PM continues to the next line item and repeats the cycle. If not satisfied, the PM must engage with the PF via a pre-determined protocol to resolve the matter.
    - » Completion of the checklist is called by the PM. For example, *'before landing checklist - complete*'.
    - » Protocols should apply for holding or suspending the progress of a checklist.
  - Abnormal checklists:
    - » To initiate, the PF calls the abnormal condition and related checklist e.g. *'Inverter 1 Fail annunciator. Inverter failure checklist'*.
    - » To execute, the PM, if satisfied, confirms the call and reads the checklist name, followed by the first line item. Completion should then proceed in accordance with the checklist.
  - Emergency checklists:
    - » The pilot intended to retain or regain the aircraft controls at the onset of an emergency, should be positively determined before flight.

- To initiate the checklist, the PF calls the emergency condition and related checklist e.g. *'left engine fire light – In-flight engine fire light checklist"*.
- Before proceeding, the PM cross checks to confirm the specifics of the emergency condition e.g. PM *'left fire light confirmed'* or '*STOP!'* if an error is perceived.
- When the condition is correctly identified, procedural actions identified as 'immediate' are performed from memory by the PF.
- An 'identify and confirm' protocol should be applied before actioning each safety-critical control.
- Subsequent non-immediate checklist items may be read from the checklist by the PM, when called for by the PF.

3.4.4 The protocols described above are examples only and aircraft operators should consider all circumstances of their operation when developing and documenting the detail of procedures for checklist use.

3.5 Emergency and abnormal procedures checklists

3.5.1 While not always explicitly stated in flight manual procedures, the priority at the onset of an emergency or abnormal condition is to fly the aircraft and ensure that required aircraft performance is maintained. Subsequent actions should be based on detailed protocols defining who does what, when and how. These should be proven by practical trial and documented to describe crew member responsibilities, tasks, actions and phraseology.

3.5.2 To safeguard against erroneous actions and compounded emergencies, it is critical that the pilot responsible, prior to activating any safety-critical system control such as mixture lever, fire switch or fuel shut-off, conduct an *'identification and confirmation'* protocol - applicable to both multi-crew and single pilot operations.

3.5.3 Urgent implementation of time-critical emergency procedures is often accompanied by degrees of crew stress and anxiety. These are reduced when individuals possess familiarity and confidence developed through regular simulated practice of emergency procedures. Familiarity is particularly important when emergency procedures require prompt memory based immediate actions.

3.6 Producing aircraft checklists

3.6.1 Aircraft operators and PIC may meet CASR obligations related to checklists, by use of FCOM or QRH produced by the aircraft manufacturer or other third parties, e.g., flight crew training organisations. If used, third party checklists must be reviewed for currency and suitability. Irrespective of the source of checklists, operators should provide detailed instructions for use of aircraft checklists to ensure aircraft are operated in a way that meets flight manual requirements and limitations.

3.6.2 If suitable off-the-shelf checklists such as FCOM or QRH are not available, operators will need to produce their own aircraft checklists and instructions. Checklists should be developed through a structured activity involving subject matter experts such as senior flight crew. Checklists must be capable of serving the dual purposes of procedural reference and procedural confirmation. Broadly, considerations include content accuracy, layout, format, document control, review and amendment. More detailed information is available in later sections of this AC.

3.6.3 Although no requirement exists for regulatory approval of aircraft checklists, the checklists and associated instructions are part of an air transport or aerial work operator's exposition or operations manual. Any changes to checklists and instructions are subject to the operator's change management processes.

3.6.4 Operators are recommended to consider including appropriate checks of the flight management system (FMS) after engine start and before take-off in their checklists, if third party checklists are being used and they do not include such checks. These checks can help identify FMS data errors before departure. See Australian Transport Safety Bureau report AO-2025-072, Avionics/flight instruments occurrence involving Saab 340B, VH-ZRM, 19 November 2025.

3.7 Checklist content

3.7.1 Whether flight manual operating procedures or operator developed equivalent procedures are used as a basis, aircraft checklists must concisely convey each procedural step in correct sequence. Each step identifies an actionable item followed by the corresponding required outcome. For example, *'Landing gear – Up'* or *'Airspeed – V2'*.

3.7.2 When designing checklist content, operators are recommended to consider relevant recommendations and safety findings from aircraft incident and accident reports. This can help operators address known hazards and reduce the risk of similar incidents and accidents. See Australian Transport Safety Bureau report AO-2025-072, Avionics/flight instruments occurrence involving Saab 340B, VH-ZRM, 19 November 2025.

3.7.3 Most flight manual operating procedures are presented in a checklist form with interspersed explanatory information. For effective use by aircraft crew, checklists should be devoid of distracting non-essential information, with any remaining content limited to actionable items and the corresponding required outcomes. While these checklists are sometimes referred to as 'abbreviated checklists', the term should be used with caution to avoid implications that the list of checks is abbreviated or reduced e.g., as with abbreviated circuit training checklists. More accurate terms are '*aircraft checklist*' or '*cockpit checklist*'. Full-text operating procedures including notes, cautions and warnings as published in a flight manual, are referred to as 'amplified checklists' or 'expanded checklists', and as such are unsuitable for use in aircraft.

3.7.4 The physical task of producing an aircraft checklist is made more efficient by the use of modern information technology. Use of an editable electronic copy of flight manual operating procedures is often the best option. Non-essential information may be removed and checklist content suitably formatted. Drafts must be carefully proof-read and double checked for technical accuracy and functionality. Due to font size, layout or non-essential information, scanning or copying directly from the flight manual may not be suitable.

3.7.5 For multi-crew operations, and when not included in the flight manual procedures, crew positions responsible for each action or check should be annotated against the line item. For example, *'Landing gear – Up [PF]'* indicating the PF is to report 'up' when retraction of the landing gear is confirmed. Precise instructions describing who *'does'* and *'says' 'what'* and *'when'* should be available to ensure the protocols are understood without ambiguity.

3.8 Checklist format

3.8.1 Effective use of checklists is influenced by checklist format and layout. Format design should account for the kind of aircraft operations and related foreseeable circumstances. Simulated trials of prototype checklists are useful to confirm format suitability.

3.8.2 Checklists may be in a physical format (i.e., paper or card) or an electronic format such as multi-function displays or electronic flight bags (EFB). If portable devices such as an EFB are used, consideration should be given to device storage, security and accessibility in all flight conditions.

3.8.3 Physically formatted checklists may be booklet form or mechanical device. If booklet form is preferred, consideration should be given to:

- **Page size:** Page size should provide secure and efficient handling. Generally, A5 is the most suitable page size. Other factors influencing page size are procedural complexity, auto-pilot availability and booklet stowage facilities.

- **Binding:** Bindings should allow free page movement and hands-free retention of the selected page. Spiral binding or similar allows page fold-back for ease of handling.
- **Indexing:** A front index of checklists, particularly abnormal or emergency procedures, allows for quick review of available checklists and page location.
- **Quick reference tabs:** The use of labelled tabs extending beyond the page edge can assist in rapid selection of the required page, particularly under abnormal or emergency conditions.
- **Colour-coded sections:** Sections may be colour coded according to checklist type.
- **Font style, size and colour:** Font style, size, kerning, leading and colour determine readability. The variables should be considered in the context of operational circumstances, such as night VFR or low-level flight.
- **Durability:** Particularly when subject to frequent use, the condition of physical checklists will deteriorate over time. To minimise deterioration, particularly if readability is affected, checklists should be protected with plasticised page coatings, and periodically checked and replaced when required.

3.9 Maintaining checklist integrity

3.9.1 Integrity of checklists refers to validity of information and functionality, and is maintained through document control, review, amendment and distribution activities.

3.9.2 Document control is the outcome of processes to assure the user that each page of the checklist is the current version. Page currency is demonstrated by identifying each page with version control markings such as version number and date, and by the inclusion of a list of effective pages identifying the current version of each page.

3.9.3 Checklist amendment is necessary to capture flight manual operating procedure amendments or to implement changes determined by the operator. All aircraft operators should have a process for timely receipt of aircraft flight manual amendments, particularly changes to operating procedures.

3.9.4 The amendment process should include procedures to:

- identify and verify the need for change
- plan and draft the change
- confirm or authorise the change
- manage document control
- promulgate and distribute the amendment.

3.9.5 When aircraft checklists form part of the operator's exposition or operations manual, changes to aircraft checklists must follow the operator's change management process.

3.9.6 Distribution of original and subsequent checklists to crew and aircraft should be controlled and recorded. Periodic checks should be conducted to confirm the distribution and condition of checklists.

3.9.7 When reviewing checklists, operators are recommended to consider relevant recommendations and safety findings from aircraft incident and accident reports. Operators should amend checklist content where these findings show that existing checklists may no longer remain appropriate. See Australian Transport Safety Bureau report AO-2025-072, Avionics/flight instruments occurrence involving Saab 340B, VH-ZRM, 19 November 2025.

3.10 Use of checklists under Parts 121, 133, 135 and 138

3.10.1 Under the applicable CASR Parts, operators are required to make checklists available to crew[17]. As checklists and associated instructions for use are part of the operator's exposition or operations manual, crew are obliged to comply with relevant material[18]. Effective compliance is dependent on crew proficiency in the use of checklists. Unless refreshed through periodic training and checking, proficiency may diminish to the detriment of safety. To support preparation for training and checking, each crew member should have reliable off-duty access to current versions of aircraft checklists.

3.10.2 For compliance with requirements for checklist availability, operators should determine if checklists are to be assigned to and retained in each aircraft, or if personal copies are to be assigned to crew members. In all circumstances, document control is paramount to maintaining checklist integrity.

[17] Regulation 121.070, 133.040, 135.050, 138.215.

[18] Regulation 119.215 and 138.160.