



**Australian Government**  

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**Civil Aviation Safety Authority**



# **AC 39-01**

## **Airworthiness directives**

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:

- registered operators (ROs)
- continued airworthiness management organisations
- approved maintenance organisations
- maintenance certificate of approval holders
- licenced aircraft engineers.

## Purpose

This AC provides guidance and information to ROs and maintenance personnel regarding their responsibility for complying with Airworthiness Directives (ADs) and recording compliance with the AD in the appropriate maintenance records.

## For further information

For further information on this AC, contact Civil Aviation Safety Authority's (CASA's) Airworthiness & Engineering Standards Branch (telephone 131 757).

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

## Status

This version of the AC is approved by the Manager, Airworthiness & Engineering Branch.

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

Version	Date	Details
v4.3	December 2019	Amended background and added explanation of CASAs approach to harmonisation with State of Design.
v4.2	November 2018	Updated parameters for defining ADs as urgent.
v4.1	November 2015	<ul style="list-style-type: none"> <li>• Reformatted document</li> <li>• Amended paragraph 4.5 to include reference to Proposed Airworthiness Directives.</li> <li>• Added chapter 14 - Use of State of Design alternate means of compliance (AMOC) to comply with equivalent Australian ADs.</li> <li>• Paragraph 16.7.3 has been deleted with reference to publishing of CASA AMOCS.</li> </ul>
(4)	May 2010	Fourth revision of AC 39-01.
(3)	April 2009	Third revision of this AC 39-01.
(2)	March 2004	Second revision of this AC 39-01.
(1)	June 2000	Initial AC 39-01.

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# 1 Reference material

## 1.1 Acronyms

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

Acronym	Description
AC	Advisory Circular
AD	Airworthiness Directive
AFM	Aircraft Flight Manual
AMO	Approved Maintenance Organisation
AMOC	Alternate Means of Compliance
CAR	<i>Civil Aviation Regulations 1988</i>
CASA	Civil Aviation Safety Authority
CASR	<i>Civil Aviation Safety Regulations 1998</i>
CofA	Certificate of Airworthiness
CoR	Certificate of Registration
EASA	European Aviation Safety Agency
FAA	Federal Aviation Administration (of the United States of America)
LAME	Licensed Aircraft Maintenance Engineer
NAA	National Airworthiness Authority
NPRM	Notice of Proposed Rule Making
OEM	Original Equipment Manufacturer
RO	Registered Operator
SB	Service Bulletin
SFP	Special Flight Permit
STC	Supplementary Type Certificate
UK	United Kingdom

## 1.2 Definitions

Terms that have specific meaning within this AC are defined in the table below.

Term	Definition
Aeronautical product	Any part or material that is, or is intended by its manufacturer to be, a part of or used in an aircraft, unless excluded by the regulations.
Aircraft model	A particular version of a type of aircraft that is distinguished from another version of the same type by a change of sufficient effect on the weight,

Term	Definition
	balance, structural strength, operational characteristics as would require a separate entry on a type certificate, identifying and approving the particular version as distinct from the identification and approval of other versions.
Airworthiness Directive (AD)	A mandatory regulatory document that requires the RO to comply with the requirements to address an unsafe condition on an aircraft or aeronautical product.
Alternate Means of Compliance (AMOC)	An alternate means of compliance with an AD, approved by CASA or NAA of the State of Design.
Australian AD	An airworthiness directive issued by CASA under regulation 39.001.
Exclusion	An approval issued by CASA that excludes an aircraft or aeronautical product from the requirements of an AD because the unsafe condition does not exist due to a modification or repair.
Kind	The use of the term kind in this AC is to cover a class or group of the same nature or character. For example, type, series or model of aircraft or aeronautical product.
National Airworthiness Authority (NAA)	The airworthiness regulatory authority of the country.
State of Design	The State having jurisdiction over the organisation responsible for the type design.
State of Design AD	An airworthiness directive issued by the NAA of the State of Design. It is also called a Country-of-Origin AD.
Unsafe Condition	A condition which, if not corrected, is reasonably expected to result in one or more serious injuries.

## 1.3 References

### Regulations

Regulations are available on the Federal Register of Legislation website <https://www.legislation.gov.au/Home>

Document	Title
Part 42	Continuing airworthiness requirements for aircraft and aeronautical products
Regulation 51B of CAR	Defects discovered in complying with directions by CASA
Part 39	Airworthiness Directives
Civil Aviation Order (CAO) 100.5	General requirements in respect of maintenance of Australian aircraft
Instrument number CASA 136/15	Approval - alternate means of compliance issued by a foreign State of Design for an airworthiness directive issued by the foreign State of Design

## Advisory Material

CASA's Advisory Circulars are available at <http://www.casa.gov.au/AC>

CASA's Civil Aviation Advisory Publications are available at <http://www.casa.gov.au/CAAP>

Document	Title
AC 21-09	Special flight permits
Civil Aviation Advisory Publication (CAAP) 51-1(2)	Defect reporting
CASA AD webpage	ADs are available at: <a href="https://www.casa.gov.au/search-centre/airworthiness-directives">https://www.casa.gov.au/search-centre/airworthiness-directives</a>

## Forms

Forms are available on the CASA website <http://www.casa.gov.au/forms>

Document	Title
Form 951	Request for review of an Airworthiness Directive <a href="https://www.casa.gov.au/files/form951pdf">https://www.casa.gov.au/files/form951pdf</a>
Form 953	Application for an AMOC/exclusion from an Airworthiness Directive <a href="https://www.casa.gov.au/files/form953pdf">https://www.casa.gov.au/files/form953pdf</a>
FAA Form 8100-9	Statement of compliance with airworthiness standards <a href="https://www.faa.gov/airports/resources/forms">https://www.faa.gov/airports/resources/forms</a>

## CASA mailing list

CASA's information mailing list is available at <https://www.casa.gov.au/about-us>



## 2 Introduction

### 2.1 Background

- 2.1.1 An airworthiness directive (AD) is a regulation issued to correct an unsafe condition that exists in an aircraft or aeronautical product and is likely to exist in other aircraft or aeronautical products of that kind. An airworthiness directive prescribes the conditions and limitations, including inspection, repair, or alteration, under which the product may continue to be operated.
- 2.1.2 ADs are key elements in implementing the safety responsibilities conferred on CASA by the *Civil Aviation Act 1988*. Together with the safety standards imposed through type certification and other airworthiness certification requirements, ADs provide an additional and indispensable level of regulation to ensure that aircraft and aeronautical products remain airworthy at all times. Unanticipated problems arising during service, such as design deficiencies, material wear, fatigue, corrosion, and deterioration, which may pose substantial hazards to the continued airworthiness of aircraft and aeronautical products, can be prevented through the prompt issue of accurate ADs.
- 2.1.3 From 1 October 2009, in accordance with Part 39 of *the Civil Aviation Safety Regulations (CASR)*:
- all aircraft on the Australian register are required to comply with applicable ADs issued by the National Airworthiness Authority (NAA) of the State of Design
  - it is the responsibility of the registered operator (RO) to monitor all ADs (Australian and State of Design ADs) applicable to their aircraft and aeronautical products
  - CASA will no longer produce an Australian AD that mirrors a State of Design AD unless the applicability of the State of Design AD requires amendment to include Australian aircraft operated in similar conditions
  - CASA will still have the ability to issue unique Australian ADs to address an unsafe condition in an aircraft or aeronautical product
  - except for emergency ADs, CASA no longer forwards State of Design ADs to ROs.
- 2.1.4 From 1 October 2009, CASA has automatically accepted an alternate means of compliance (AMOC) for a State of Design AD provided the AMOC is approved by the NAA of the State of Design. If the State of Design NAA appoints a delegate or authorised person to issue AMOCs on its behalf, then the AMOC approved by such a delegate or authorised person is recognised by CASA. That is, industry no longer need to submit an exclusion or a proposed AMOC application to CASA if the AMOC against a State of Design AD has been approved by the NAA of the State of Design (see Section 11). Industry can still submit exclusion or proposed AMOC, applications for Australian ADs and State of Design ADs.
- 2.1.5 From 1 October 2009, ROs have been required to comply with both State of Design ADs and Australian ADs applicable to their aircraft. Details of the requirements for each aircraft model are included on the CASA website.
- 2.1.6 From 15 September 2015, CASA has automatically accepted an AMOC for a State of Design AD as a means of compliance with an Australian AD, which mandates the requirements of the State of Design AD.

- 2.1.7 For an aircraft model issued with a Certificate of Registration (CoR) prior to 1 October 2009 (implementation date of Part 39 amendment) and already registered on the Australian Civil Aircraft Register, the RO must comply with applicable Australian ADs and any State of Design ADs issued after 1 October 2009.
- 2.1.8 For a new aircraft model that has never had the same model issued with a CoR prior to 1 October 2009 and entering the Australian Civil Aircraft Register, the RO must comply with both applicable Australian ADs and applicable State of Design ADs.
- 2.1.9 In order to ensure compliance with all applicable mandatory requirements, the owners and ROs of aircraft must ensure they are aware of the content of any AD issued by the NAA of the State of Design and any applicable CASA AD. In addition, organisations or individuals undertaking maintenance and overhaul must ensure that they are in receipt of ADs issued by the NAA of the State of Design and any CASA AD or mandatory requirements applicable to Products, Parts and Appliances which they maintain or overhaul.

## **2.2 CASA's approach to harmonisation with State of Design**

- 2.2.1 One of CASA's roles is to assure that the airworthiness of Australian-registered aircraft is preserved to at least the standard established at type certification by the authority of the State of Design.
- 2.2.2 Unsafe conditions identified in Australian-registered aircraft are managed under Part 39.. CASA may issue an airworthiness directive where an unsafe condition exists in an aircraft and the condition exists or is likely to exist in other Australian aircraft.
- 2.2.3 The authority of the State of Design is usually in the best position to understand the safety risks associated with deficiencies in an aircraft design or manufacture identified in service.
- 2.2.4 As a result, under Part 39, an airworthiness directive issued by the authority of the State of Design automatically applies to Australian registered aircraft of the applicable type. The actions and decisions of the State of Design to issue an airworthiness directive or not to issue an airworthiness directive, are therefore significant and instructive. CASA typically only deviates from the position taken by the State of Design where local contextual circumstances exist, or where CASA has reason to believe the State of Design has not addressed the unsafe condition.

## 3 State of Design AD

### 3.1 Compliance with State of Design ADs

- 3.1.1 From 1 October 2009, all ROs have been required to comply with the requirements of State of Design ADs applicable to their aircraft, including revisions to existing State of Design ADs. CASA no longer issues State of Design ADs as Australian ADs. This means the RO must now monitor State of Design ADs to ensure the continuing airworthiness of their aircraft. In many circumstances, it is anticipated that the RO's maintenance organisation will assist with the monitoring of and ensuring compliance with ADs. Nevertheless, CASA will provide the necessary information on the CASA website to enable each RO and maintenance organisation ready access to State of Design ADs. This information will include:
- a list of the NAAs responsible for all type certificated aircraft, engines and propellers operating on the Australian register
  - access links to State of Design NAAs
  - access to State of Design ADs on the CASA website.
- 3.1.2 The RO will need to comply with all the ADs covering their aircraft, engine, propeller and equipment. This includes State of Design ADs and Australian ADs.

### 3.2 State of Design ADs compliance

- 3.2.1 The State of Design ADs compliance depends on whether the aircraft of the same model was on the Australian Civil Aircraft Register prior to 1 October 2009:
- if the aircraft model was on the Australian Civil Aircraft Register prior to 1 October 2009, the RO must comply with State of Design ADs issued on or after 1 October 2009
  - if the aircraft model was not on the Australian Civil Aircraft Register prior to 1 October 2009, the RO must comply with all State of Design ADs issued for the aircraft.
- 3.2.2 It should be noted that there would still be a number of Australian ADs applicable to many aircraft operating in Australia. These Australian ADs are also available on the CASA website.

### 3.3 Equipment to monitor and obtain State of Design ADs

- 3.3.1 To monitor and obtain State of Design ADs the RO must have access to a computer with internet capability.

### 3.4 Establishing the NAA of the State of Design for aircraft, engine and propeller

- 3.4.1 Aircraft, propellers and engines are all type certificated products and the continuing airworthiness of these products is controlled by the NAA of the State of Design.

For example:

Cessna aircraft are designed in the United States of America (USA) and type certificated by the Federal Aviation Administration (FAA) - the NAA of the State of Design. Many Cessna models use Continental engines and McCauley propellers. Both these are designed in the USA and type certified by the FAA. Therefore, for a Cessna aircraft, the propeller and engine, the NAA of the State of Design is the FAA.

However, in some cases, the engine or propeller may be type certificated in different countries to the aircraft, and subsequently the NAA for propeller or engine will be different to the aircraft. To establish the NAA, the RO must first establish the make of their aircraft, engine and propeller.

- 3.4.2 Once this is established, go to the CASA AD webpage and search the list of NAAs for all type-certificated aircraft, engines and propellers operating in Australia.

### 3.5 How to obtain a State of Design AD

- 3.5.1 The RO is obligated to regularly search up-to-date State of Design AD information for their aircraft, engine, propellers and appliances.
- 3.5.2 The RO can obtain State of Design ADs issued on or after 1 October 2009 from the CASA website. This list will contain the existing Australian ADs and the State of Design ADs applicable to that aircraft model. CASA will endeavour to update this list as soon as possible after receiving notification from the NAA that a State of Design AD has been issued.
- 3.5.3 Many aircraft will also be subject to State of Design ADs for equipment and Supplementary Type Certificates (STC). These State of Design ADs are located in various NAAs and may be different to the aircraft NAA. ROs with limited experience with AD regulation may find it very difficult to monitor the equipment and STC ADs. As a result, CASA provides a copy of each equipment and STC AD on the CASA website. Therefore, for an RO to ensure compliance with these ADs, the RO must identify all the equipment and STCs fitted to the aircraft. The following list gives an indication of possible types of equipment:
- air conditioning equipment
  - air induction systems
  - auxiliary power units
  - cargo equipment
  - cockpit voice and flight data recording systems
  - compressed gas cylinders
  - coolers
  - electrical equipment
  - emergency equipment
  - fire protection equipment
  - flight management systems
  - fuel supply and metering equipment

- hose assemblies
- hydraulic equipment
- instruments and automatic pilot
- lubrication systems
- oxygen systems
- parachute equipment
- pneumatic equipment
- precision aerial delivery system
- propeller governors
- radio communication and navigation equipment
- restraint equipment
- seats and berths
- supplementary equipment
- turbochargers
- wheels and tyres.

3.5.4 Once the equipment list has been identified, a search for equipment ADs applicable to the aircraft can be conducted through the CASA equipment AD website [https://www.casa.gov.au/search-centre/airworthiness-directives-equipment?field\\_tx\\_ad\\_group\\_description=23279](https://www.casa.gov.au/search-centre/airworthiness-directives-equipment?field_tx_ad_group_description=23279).

### 3.6 Regular monitoring of State of Design ADs

3.6.1 NAAs can issue a State of Design AD at any time, so it is important to regularly check the NAA AD website.

3.6.2 Occasionally, an NAA may issue an urgent AD with immediate or very short compliance periods. In such cases, CASA will endeavour to fax, email or express post all urgent ADs to applicable ROs who have registered their details with CASA.

3.6.3 To ensure compliance with normal ADs (non-emergency ADs), it is recommended that the RO monitor the NAA AD or CASA AD website at least every 4 weeks. However, the RO must be aware that AMOC or exclusion applications submitted to CASA requesting a delay in compliance with an AD will not be approved on the justification that they were not aware of the State of Design AD.

**Note:** Some foreign NAAs allow email subscription to ADs by aircraft and equipment type.

### 3.7 ADs that require findings to be submitted to the NAA

3.7.1 On some occasions, compliance with a State of Design AD requires reports or findings to be submitted to the NAA. As the NAA is only responsible for aircraft registered under its jurisdiction, it is inappropriate that reports from Australian registered aircraft be sent to the State of Design NAA. Under regulation 39.005, these reports or findings must be submitted to CASA rather than the State of Design NAA. Once submitted CASA reviews these reports or findings and, if deemed necessary, would forward the information to the NAA.

3.7.2 Submit findings to CASA's [AD Cell](#).

### 3.8 Foreign manufactured aircraft compliance

- 3.8.1 If a foreign manufactured aircraft entering the Australian Civil Aircraft Register has the same model of aircraft already on the Australian Civil Aircraft Register before 1 October 2009, then the aircraft must comply with State of Design ADs issued on or after 1 October 2009 and all Australian ADs applicable to this aircraft. However, prior to the issue of a Certificate of Airworthiness (CofA), if a State of Design AD has been complied with and this AD has the equivalent requirements of an Australian AD, then the Australian AD is taken to have been complied with (refer to regulation 39.002A).
- 3.8.2 If a foreign manufactured aircraft entering the Australian Civil Aircraft Register does not have the same model of aircraft already on the Australian Civil Aircraft Register before 1 October 2009, then the aircraft must comply with all State of Design ADs issued for the aircraft and all applicable Australian ADs.

### 3.9 Variations of existing models on the Australian Civil Aircraft Register

- 3.9.1 Aircraft manufacturers regularly produce variants of existing models. For example Boeing and Airbus have model variations such as B737-300, -400, -500 and the A330-201, -202, -203, respectively. If an aircraft enters the Australian Civil Aircraft Register and this aircraft is a variant of an existing aircraft model that has been on the Australian register prior to 1 October 2009, then this aircraft variant is not considered a new model. As a result, the RO must ensure that the aircraft complies with the State of Design ADs issued on or after 1 October 2009 and any Australian ADs that may be applicable.

**Note:** Many ADs will specify the model variants in the applicability statement.

- 3.9.2 To alleviate any confusion with the applicable AD requirements for an aircraft model or variant, the RO can contact CASA's [AD Cell](#) for confirmation as follows:

### 3.10 State of Design NAA for European manufactured aircraft

- 3.10.1 Recently ADs from European-manufactured aircraft have been issued from two sources, the European Aviation Safety Agency (EASA) and the State of Design. CASA understands that under EASA requirements, the State of Design is responsible for production airworthiness issues and has prime responsibility to issue ADs that address these issues. For example, for an aircraft manufactured in the United Kingdom (UK) such as the BAe 146, the sources of ADs would be EASA and the UK Civil Aviation Authority. Although ADs from the State of Design are not common, the RO should ensure they monitor both EASA and the State of Design to ensure compliance with all ADs. To avoid confusion for European aircraft, CASA list these ADs on the CASA website.

## 4 Australian ADs

### 4.1 ADs issued by CASA

- 4.1.1 Under regulation 39.001, CASA may issue an Australian AD for a specified kind of aircraft, or a specified kind of aeronautical product if:
- an unsafe condition exists in an aircraft or aeronautical product of that kind; and
  - the condition exists, is likely to exist, or could develop, in other aircraft and aeronautical products of that kind.
- 4.1.2 Australian ADs are divided into two categories:
- those of an urgent nature requiring immediate compliance upon receipt, referred to as 'urgent ADs'
  - those of a less urgent nature requiring compliance within a reasonable time frame.
- 4.1.3 AD action will only be taken where the criteria specified in paragraphs 39.001(1)(a) and (b) apply. Such ADs will prescribe corrective actions to be taken or the conditions and limitations under which the products may continue to be operated.
- 4.1.4 Evidence of an unsafe condition can result from a defect report where it is evident that the aircraft does not comply with a safety aspect of the aircraft design standard.

### 4.2 Issue of Australian ADs

- 4.2.1 Depending on the urgency, ADs are issued as follows:
- **Normal ADs** – these are published before the effective date of the AD and will appear in a bi-weekly listing on the CASA website. These ADs will also appear in the aircraft and equipment listing.
  - **Urgent ADs** – these ADs may require immediate action or action in less than 25 hours' time in service or less than 25 cycles, or less than 30 days. These ADs will appear on the CASA website under urgent ADs and are also forwarded to ROs by fax, email or express post.

### 4.3 Publication of Australian ADs

- 4.3.1 CASA publishes all Australian ADs on the CASA website.
- 4.3.2 CASA also provides an [information mailing list](#) concerning maintenance, certification and airworthiness issues. This service also includes notifications of new or amended Australian ADs.

**Note:** Only emergency ADs will be forwarded to ROs. Therefore, it is the responsibility of the RO to monitor the CASA website to ensure compliance with all ADs, State of Design and Australian ADs. However, all email subscribers will receive ADs when published.

### 4.4 Public consultation of Australian ADs

- 4.4.1 When CASA plans to issue an Australian AD, it will either be published as a Proposed AD or a Notice of Proposed Rule Making (NPRM) for an AD for public comment.

- 4.4.2 Proposed ADs are published when CASA intends to mandate manufacturers maintenance data or amend an existing Australian AD.
- 4.4.3 An NPRM will be published when CASA intend to introduce a new, uniquely Australian requirement. When this consultation occurs, interested persons are invited to comment by submitting written views on the proposal. CASA will consider each comment and may amend the AD to reflect such views.

## 4.5 Australian ADs not requiring public consultation

- 4.5.1 Public consultation is not conducted for the following ADs:
- emergency ADs that are unique to Australia but require immediate safety consideration (consultation may be necessary after the AD has been issued if the AD requires repeat inspections)
  - ADs that address requirements that are made mandatory in another form (other than an AD) by the NAA approving the type design through type certification. For example, a specific limitation included in the certifying country's regulatory framework
  - an Australian AD that either revises compliance times, corrects typographical errors, provides comment or clarification notes or provides changes that do not increase the difficulty of compliance for Australian ROs
  - an AD that revokes an existing AD or eliminates redundant requirements.

## 4.6 Structure of an Australian AD

- 4.6.1 An Australian AD is structured as follows:
- **Applicability** – this details what aircraft or aeronautical products are affected by the AD.
  - **Requirement** – this sets out what action needs to be taken to correct the unsafe condition. When there is more than one requirement, each particular requirement will be numbered as a separate paragraph.
  - **Compliance** – this sets out when the requirement action must be undertaken. The compliance period may specify such things as hours, time in service, calendar period or date, flight cycles or landings. The compliance period cannot begin prior to the effective date of the AD. On occasions when there is more than one requirement, it is possible that different compliance periods will be given for each requirement. On such occasions, each compliance paragraph must align with the numbering given for the Requirement paragraphs.
  - **Note** – a note details reference documents or gives information that may be useful to the person carrying out the AD. Legal requirements will not be placed in notes.
  - **Effective Date** – this is the date that the AD comes into force, after the AD is lodged on the Federal Register of Legislative Instruments with the Attorney General's Department.
  - **Background** – this provides a brief description of the unsafe condition and how the AD addresses the unsafe condition. Also, a brief history of the amendments (if any) to the AD will be included in the description.



## 4.7 Requirement documents in Australian ADs

4.7.1 Many Australian ADs require action to be taken in accordance with a requirement document such as a manufacturer's Service Bulletin (SB) or a Service Instruction. These documents are regularly amended and issued with a sequential number. CASA recognises that ROs would prefer to carry out the maintenance to the latest issued document rather than maintaining the aircraft to the issued document referred in the AD. The definition of an Australian AD in Part 39 allows CASA to include a statement in the Australian ADs such as:

'Inspect in accordance with Service Bulletin XYZ Rev A or a later revision'.

When such a statement is included in an Australian AD, the RO may action any revision of the SB from Revision A to the latest issue.

## 5 ADs that apply to aircraft

### 5.1 Applicability of ADs

- 5.1.1 Australian ADs and State of Design ADs usually contain an applicability statement specifying the aircraft to which it applies. When there is no reference to an aircraft type by serial number, all models of the product are affected. Otherwise, where the serial number or number series of an aircraft to which the AD is applicable is specified, only those aircraft are affected.
- 5.1.2 Additionally, if the AD applicability statement identifies an aircraft model fitted with certain type of equipment, then only those aircraft fitted with this equipment are affected by the AD.
- 5.1.3 An AD applies to all aircraft identified in the applicability statement, regardless of whether it has been previously repaired or modified in the area subject to the requirements of the AD or regardless of the kind of CofA or permission issued for the aircraft.
- 5.1.4 For aircraft that have been repaired or modified so that the performance of the requirements of the AD is affected, a person may apply to CASA under regulation 39.004 for approval of an exclusion (see section 10). Unless specifically excluded in the AD, the presence of a repair or modification does not remove any aircraft from the applicability of the AD.
- 5.1.5 When an aircraft has been modified to reflect a model update, the RO must ensure compliance with ADs applicable to the updated modification.

## **6 ADs requiring flight manual change**

### **6.1 Updating flight manual**

- 6.1.1 To correct an unsafe situation, an AD may direct an amendment to the Aircraft Flight Manual (AFM). Where an AD includes a requirement that changes the contents of an AFM or AFM supplement, then the AD compliance statement usually requires a copy of the AD to be inserted into the AFM until corrective action is taken.
- 6.1.2 It is the responsibility of the RO to ensure that the AFM has been amended, the nature of the amendment is brought to the attention of the affected aircrew and the AD is signed off in the amendment record sheet of the AFM.

## 7 AD Compliance

### 7.1 RO compliance with ADs

- 7.1.1 Compliance with an AD is mandatory. Therefore, no person may operate an aircraft that is covered by an AD or is fitted with an aeronautical product covered by an AD, unless a Special Flight Permit (SFP) has been granted or an exclusion or an AMOC has been approved under regulation 39.004.
- 7.1.2 The RO has prime responsibility for AD compliance. The RO must ascertain that the AD has been implemented in the manner prescribed and refrain from engaging in flight operations contrary to the provisions of the applicable AD.
- 7.1.3 The role of Licensed Aircraft Maintenance Engineers (LAMEs) and Approved Maintenance Organisations (AMOs), with regard to AD compliance, should also be clearly understood. Some aircraft owners and ROs may be under the impression that when the aircraft is booked into the AMO workshop for a scheduled inspection, the AMO will routinely ensure that all ADs have been complied with before final certification for return to service. This may not necessarily be true as some ADs may deal with aeronautical products that are not normally part of the inspection.
- 7.1.4 Some ADs at the time of the inspection may have delayed compliance dates outside the normal inspection periods. In such cases, the LAME and/or AMO may not be obliged to act upon them unless requested to do so by the RO. Therefore, it is the responsibility of the RO to ensure compliance with all ADs.
- 7.1.5 Compliance with immediate safety of flight ADs is recognised as a problem for ROs of leased aircraft. It is important that owner/ROs of leased aircraft make the AD information available to the organisation leasing their aircraft as quickly as possible. Unless this is done, the lessee may not be aware of the AD and, apart from safety being jeopardised, the lessee may be operating the aircraft illegally. Lease agreements between a lessee and the RO should clearly identify how AD compliance is to be actioned.

### 7.2 Responsibility for AD compliance recording

- 7.2.1 Responsibility for AD compliance rests with the RO of the aircraft who is responsible for ensuring the aircraft remains in an airworthy condition.
- 7.2.2 This responsibility may be met by ensuring that certificated and appropriately rated aircraft maintenance personnel carry out and certify the maintenance required by the AD and properly record it in the maintenance records. This must be done within the compliance times specified in the AD or the aircraft may not be operated.
- 7.2.3 For aircraft inspected in accordance with a maintenance program, maintenance inspection personnel are required to comply with ADs only when the portions of the inspection program provided require compliance. The maintenance program may require a determination of AD compliance for the entire aircraft by a general statement, or compliance with ADs applicable only to portions of the aircraft being inspected, or it may not require compliance at all. This does not mean that AD compliance is not required by the compliance time or date specified in the AD. It only means that the RO

has elected to handle AD compliance separately from the maintenance inspection program as special inspections. The RO is responsible for AD compliance even though this function is performed on behalf of the RO by a maintenance scheduler/controller.

- 7.2.4 The RO is required to maintain the aircraft records and to ensure that maintenance personnel make appropriate entries in the records. Completion of AD action must be signed off with the appropriate documentation. In a large organisation, the work card, Engineering Instruction or Order should have reference to the AD so that the person signing these documents understands what they are signing. The RO is responsible for ensuring that proper records are kept even where this function is performed on behalf of the RO by the maintenance scheduler/controller.
- 7.2.5 It should also be noted that ROs are required to retain records with respect to their aircraft and related aeronautical products (refer to Paragraph 5 of Civil Aviation Order 100.5 and Division 42.C.3 of CASR).
- 7.2.6 Certain ADs may permit pilots to carry out and certify some items under specific conditions. However, these pilots must be appropriately trained before certifying compliance against the AD. These ADs normally include maintenance recording requirements. However, if the AD does not include the recording requirements for the pilot, the RO must make available maintenance records for certification purposes. The person who carries out the work must certify compliance with the AD to return the aircraft to service and to record the status of AD compliance in the required aircraft or aeronautical product records.
- 7.2.7 If a defect is detected during the course of complying with an AD, a defect report must be submitted to CASA (refer to regulation 51B of CAR or regulation 42.350 of CASR).

### 7.3 Compliance time or date

- 7.3.1 ROs should be aware that AD compliance may not necessarily coincide with a maintenance inspection period, for example, at 100 hours or annual inspection. The required compliance time is specified in each AD, and unless the requirements of the AD have been complied with, no person may operate the affected aircraft after expiration of the stated compliance time.
- 7.3.2 Compliance requirements specified in ADs are established for safety reasons and may be stated in numerous ways. Some ADs that are of such a serious nature may require compliance before further flight. In such circumstances, an SFP may be granted under subregulation 21.197(1) enabling the aircraft to fly to a nominated maintenance base. However, on some occasions because of the critical nature of the problem, an AD may state that an SFP will not be granted.
- 7.3.3 Compliance times may also be expressed in operational terms such as:  
'before the aircraft completes 10 landings after the effective date of this AD'
- 7.3.4 Other ADs may require compliance within a specified number of hours of operation. For example:  
'compliance required before the expiry of 50 hours' time in service after the issue date of this AD'.

- 7.3.5 For turbine engines, compliance times are often expressed in terms of cycles. A cycle normally consists of an engine start, take-off operation, landing, and engine shutdown. The same applies for a pressurisation cycle.
- 7.3.6 When a direct relationship between the airworthiness issue and calendar time is identified, (for example, corrosion related problems) compliance time may be expressed as a calendar date. It should be emphasised is that not all ADs have a single compliance time period. Repetitive inspection may be required to satisfy the requirements of the AD. Some ADs may also have varying follow up action including varying inspection times as a result of the AD inspection.

## **8 Repetitive or periodic inspection periods**

### **8.1 Delaying ADs until the next inspection**

- 8.1.1 In order to provide for flexibility in administering such ADs, an AD may provide for adjustment of the inspection interval to coincide with inspections required by the CASR. This will be stated in the AD compliance paragraph. If the AD does not contain such a statement, adjustments are not permitted unless approved by an AMOC or exclusion.

## **9 ADs and conflicting maintenance documents**

### **9.1 When an AD and a SB require different things**

- 9.1.1 In many cases ADs incorporate the manufacturer's SB by reference. In these cases, the SB becomes part of the AD. In some cases, the AD may modify requirements and compliance times of the SB. If there is a conflict between the AD and a SB (or any other maintenance data), on all occasions the AD has priority and must be carried out.



## 10 Application to CASA for an exclusion or an AMOC against an AD

### 10.1 Different ways of addressing the unsafe condition

- 10.1.1 All ADs require some form of action to address the safety issue. In many cases, more than one specific repair, modification, or inspection method may be acceptable to correct an unsafe condition. Therefore, an RO may propose an alternative method of correcting an unsafe condition for Australian or State of Design ADs. When approved, this is referred to as either an exclusion or an AMOC (refer to regulation 39.004).
- 10.1.2 For CASA to consider an exclusion or an AMOC, the RO may submit an application in writing using Form 953. Any relevant information such as the NAA or manufacturer's approval, a statement from the manufacturer supporting the engineering justification should be attached to the form.
- 10.1.3 All applications will be charged a fee based on an hourly rate. Upon receiving the application, CASA will estimate the number of hours to assess the application and prepare a written quotation for the applicant. Once payment has been received, an airworthiness specialist will assess the application and make a determination.
- 10.1.4 CASA may approve an AMOC or an exclusion provided an equivalent level of safety can be justified. CASA will assess the application and make a determination based on engineering practices to ensure that the airworthiness of the aircraft will not be compromised. To enable approval, the applicant will need to provide engineering justification as to how the proposed exclusion or means of compliance will address the unsafe condition to a level of safety equivalent to the AD or ensure that the unsafe condition no longer exists. To support the application, it is recommended the engineering justification should be endorsed by an Authorised Person under Subpart 21.M, Approved Design Organisation under Subpart 21.J, or the manufacturer or the State of Design NAA.

### 10.2 Exclusions

- 10.2.1 Under paragraph 39.004 (1) (b), a person may submit an application for an exclusion from an AD as a result of a repair or modification of an aircraft or aeronautical product. Provided the unsafe condition that the AD seeks to correct no longer exists, and cannot develop, because the aircraft or aeronautical product has been modified or repaired, CASA may exclude the aircraft or aeronautical product from the AD.
- 10.2.2 When an exclusion is granted, CASA will advise the applicant, in writing, of the exclusion of the aircraft or aeronautical product from the AD, and the exclusion will be in force from the time of approval. The exclusion may also include specific conditions. These conditions must be met for the exclusion to be satisfied otherwise the applicant must carry out the AD.

### 10.3 Alternate means of compliance

- 10.3.1 Under Paragraph 39.004 (1) (a), a person may submit an application for CASA to consider an AMOC, other than set out in the AD. This could be the result of using a different inspection method as referred to in the AD or carrying out repeat inspections rather than replacement of parts if the parts are not available. For example, it may be acceptable to inspect a component for cracks using a different method or equipment to that required in the AD; in that case CASA will assess the method of compliance to ensure that the repeat inspection interval and the sensitivity of the testing method will detect cracks well before the possibility of any failure.
- 10.3.2 CASA may approve an AMOC to extend the compliance period of the AD on occasions when an AD requires replacement of parts and the manufacturer is unable to supply these parts. On such occasions, the application must be fully supported with a technical justification. This justification should include:
- an approval from the manufacturer or the NAA
  - if no parts are available, a statement from the manufacturer indicating unavailability of the parts
  - an explanation of how the problem has not arisen due to poor planning by the RO.

### 10.4 Validity of an exclusion or AMOC when an AD is amended

- 10.4.1 An exclusion or AMOC is no longer valid after an AD has been amended unless specifically stated in the amended AD. This occurs because the previous AD instrument is automatically revoked when the amended AD is issued (refer to the preamble of amended Australian ADs). Therefore, for a RO to satisfy the requirements of the amended AD, they must either resubmit an application for approval of an exclusion or an AMOC, or comply with the amended AD.
- 10.4.2 Where CASA does not approve an exclusion or a proposed AMOC application, the applicant may seek review by the Administrative Appeals Tribunal.

### 10.5 Validity of an exclusion or AMOC when an aircraft changes owner

- 10.5.1 Some exclusions and AMOCs are dependent on operational limitations undertaken by the RO. These AMOCs will cease if the aircraft changes owner.
- 10.5.2 Exclusions or AMOCs that involve a modification or repair to the aircraft will continue to have effect when the aircraft changes owner.
- 10.5.3 If an exclusion or AMOC ceases when the RO changes, it will be noted in the approval instrument.

## 11 Automatic acceptance of AMOCs approved by the NAA of the State of Design

### 11.1 Using foreign AMOCs to comply with State of Design ADs

11.1.1 On many occasions, the NAA of the State of Design approves AMOCs against their ADs. Under subregulation 39.002 (d), CASA will automatically accept an AMOC for a State of Design AD provided there is evidence that an AMOC has been approved by the NAA of the State of Design. Therefore, it is no longer necessary to submit an exclusion application against a State of Design AD if an AMOC has already been approved by the NAA of the State of Design.

11.1.2 For automatic acceptance, the AMOC must meet the following requirements:

- The AMOC must be approved by the NAA of the State of Design or a delegate specifically approved by the NAA.
- The conditions of the AMOC must not exclude an Australian product. For example, such restrictions that could exclude Australian registered aircraft are:
  - o applicable to the State of Design fleet only
  - o applicable to a specific RO(s) or organisation(s)
  - o applicable to specific models, line numbers, serial numbers or configurations
  - o applicable to age or life of the aircraft.
- A revision or amendment of the requirement document to the AD approved by the State of Design (for example, an FAA Form 8100-9 or the Original Equipment Manufacturer's (OEM) document such as a Service Bulletin or Supplementary Repair Manual) is acceptable.

### 11.2 Evidence of an AMOC

11.2.1 CASA will require the RO to show evidence of the State of Design AMOC. This evidence includes an approved NAA document that verifies the AMOC has been approved by the NAA State of Design and no restrictions exist that excludes Australian registered aircraft.

11.2.2 Prior to submitting an AMOC application against a State of Design AD to CASA, the RO is encouraged to seek information from the manufacturer to establish whether the NAA of the State of Design has approved an AMOC.

## 12 Use of State of Design AMOC to comply with an equivalent Australian AD

### 12.1 Using foreign AMOCs to comply with Australian ADs

12.1.1 Many Australian ADs published before 1 October 2009 were based on foreign State of Design ADs. In accordance with CASA Instrument 136/15, CASA will accept an AMOC for a State of Design AD as a means of compliance with the equivalent Australian AD.

12.1.2 For acceptance, the AD and the AMOC must meet the following requirements:

- CASA must not have added any requirements or conditions to the original State of Design AD.<sup>1</sup>
- The AMOC must be approved by the NAA of the State of Design or a delegate specifically approved by the NAA.
- The conditions of the AMOC must not exclude Australian products. For example, such restrictions that could exclude Australian registered aircraft are any of the following:
  - o applicable to the State of Design fleet only
  - o applicable to a specific RO(s) or organisation(s)
  - o applicable to specific models, line numbers, serial numbers or configurations
  - o applicable to age or life of the aircraft.
- A revision or amendment of the requirement document to the AD approved by the State of Design (for example, an FAA Form 8100-9 or the OEM's document such as a Service Bulletin or Supplementary Repair Manual) is acceptable.

### 12.2 Evidence of an AMOC

12.2.1 CASA will require the RO to show evidence of the State of Design AMOC. This evidence includes an approved NAA document that verifies the AMOC has been approved by the NAA State of Design and no restrictions exist that excludes Australian registered aircraft.

### 12.3 Confirmation of acceptance

12.3.1 In cases where it is not clear if CASA will accept a State of Design AMOC, please contact CASA's [AD Cell](#) for confirmation via email.

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<sup>1</sup> Although CASA often altered the compliance date of the Australian version of an AD, this is not considered a substantial change for the purposes of foreign AMOC acceptance.

## 13 AD review

### 13.1 Requesting a review of an Australian AD

13.1.1 ADs are issued by the type design regulatory authority to address unsafe conditions. As a result, the manufacturer may elect to introduce a means for terminating the need for the AD. In such circumstances where the unsafe condition no longer exists or is not likely to develop, under regulation 39.006, industry may request CASA to review an AD to establish its viability and validity.

13.1.2 From in-service operational feedback, manufacturers may implement modifications and/or update their instructions for continued airworthiness that may change the conditions related to the AD. For example, the manufacturer may elect to include limitations previously expressed in an AD in the airworthiness limitations section of the manual, or include the inspections that were in an AD in the manufacturer's maintenance program. Where this occurs, there is a need to review the AD to confirm that the unsafe condition still exists and the conditions of the AD are still appropriate.

**Note:** The issue of a mandatory SB by the manufacturer does not necessarily meet this requirement. Mandatory SB may not be mandatory under the maintenance program in place for a particular aircraft.

13.1.3 CASA will review the AD when requested and take applicable action as follows:

- confirm the continuance of the AD because the unsafe condition still exists or could exist
- amend the AD if instructions for continued airworthiness have been issued by the manufacturer that varies the conditions of the AD
- cancel the AD because the manufacturer of the aircraft or aeronautical product has taken appropriate action to address the unsafe condition
- any other appropriate course.

**Note:** CASA will only cancel an AD provided the requirements are addressed by some other mandatory requirements or the unsafe condition clearly no longer exists and the condition is not likely to exist or develop in other aircraft.

13.1.4 Persons seeking review of an AD may apply using Form 951 in writing. As a minimum the submission must include the following information:

- the name and address of the applicant
- the specific AD for which review is sought, including details of:
  - o the kind (type, model or series) of aircraft affected
  - o the kind (type, model or series) of aeronautical product affected
- the cost per aircraft or aeronautical product of complying with the AD or aspects thereof
- a detailed explanation of the circumstances, substantiating why review of the AD is considered necessary
- any information, views, or arguments available to support the action sought, the reasons why granting the request would be in the public interest.

**Note:** A fee may be charged on an hourly rate for the processing and consideration of the application.

- 13.1.5 The request for review of an AD should be sent to CASA's [AD Cell](#). CASA will advise the person seeking the review, within 28 days of receipt of the request, of what action CASA proposes to take and when, to investigate the matter set out in the request.