

Australian Government

Department of Defence Defence Aviation Safety Program

OPERATIONAL AIRWORTHINESS

GUIDEBOOK

February 2015

Note to readers

Every effort has been made to ensure the information in this booklet was accurate at the time of printing. However, this document is a guide and readers are reminded that the AAP 8000.010, coupled with AAP 7001.048, remain the authoritative documents for Operational Airworthiness Management in the ADF.



Australian Government

Department of Defence Defence Aviation Safety Program



Foreword by the ADF Operational Airworthiness Regulator

It is appropriate to update this guidebook to the ADF Operational Airworthiness management framework.

The Operational Airworthiness framework allows aircraft to be operated in their approved roles, with the right equipment, and by competent operators. It is one of three elements that comprise the ADF Aviation Safety Management System – the others being Technical Airworthiness and Flight Safety. Technical Airworthiness ensures that the design, introduction into service and maintenance processes provide platforms which can perform safely in their intended roles and environment. Flight Safety is concerned with human performance and operation within acceptable levels of risk. It is essential that you understand Operational Airworthiness within the ADF and

its contribution to the generation and maintenance of military aviation capability.

Simply put, Operational Airworthiness is a concept that contributes to the generation and maintenance of an effective military aviation capability. It ensures that Service commanders are more able to fully exploit the capability to achieve their operational objectives – it enhances Mission accomplishment.

G. N. Davies, AO CSC Air Vice-Marshal ADF Operational Airworthiness Regulator February 2015



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Defence Aviation Safety Program (DASP)

Airworthiness management in Defence has matured significantly since its inception. Both technical and operational airworthiness management were improved following a spate of accidents in the early 1990s. Aviation Safety management has also improved with the introduction of human and systems performance activities that assist in the mitigation of risks inherent to Defence aviation activities. Likewise, the introduction and development of Aviation Risk Management over the years with the involvement and interaction of all three DASP agencies has ultimately contributed to the development of a harmonised Defence safety risk management approach that will see the implementation of a common suite of risk descriptors that will improve the understanding and management of risk across the entire ADF.

Airworthiness management continues to evolve and as outlined in DI(G) OPS 02-2, it has seen the amalgamation of the previously independent Airworthiness Management System (AMS) and Aviation Safety Management System (ASMS) under a single policy framework to form the DASP.

The three DASP agencies are:

- Airworthiness Coordination and Policy Agency (ACPA)
- Directorate General Technical Airworthiness ADF (DGTA-ADF)
- Directorate of Defence Aviation and Air Force Safety (DDAAFS)

No aspect of the DASP can be treated in isolation. The management of either technical or operational airworthiness must be in full cognisance of the impacts on the other aspect of airworthiness. Aviation safety is dependent upon the effective implementation of both technical and operational airworthiness measures, and the manner in which flying operations are conducted.

The CDF, through the Service Chiefs, requires capability that delivers a required operational outcome in a nominated environment, within a specified time, and to sustain that effect for a designated period. In order to achieve this capability at safe and effective levels, the DASP provides the required framework for making judgements relating to the associated acceptable levels of risk in the aviation safety domain.





Figure 1. The Defence Aviation Safety Program (DASP)

Airworthiness - What is it?

Airworthiness is a concept, the application of which defines the condition of an aircraft and supplies the basis for judgement of the suitability for flight of that aircraft in that it has been designed, constructed, maintained and operated to approved standards and limitations, by competent and authorised individuals, who are acting as members of an approved organisation and whose work is both certified as correct and accepted on behalf of Defence. (DI(G) OPS 02-2)

Operational Airworthiness

Operational airworthiness is concerned with ensuring aircraft are operated in approved roles, with correct mission equipment, by competent and authorised individuals, according to approved procedures and instructions, under a system of supervision and monitoring. (DI(G) OPS 02-2)

Technical Airworthiness

Technical airworthiness is concerned with ensuring aircraft are designed, constructed and maintained to approved standards by competent and authorised individuals, using approved data and working within approved organisations under a system of certification and acceptance. (DI(G) OPS 02-2)



The Regulations - Where are they?

The implementation and control of ADF Airworthiness is provided by Military Aviation Regulations (MILAVREGs) published in AAP 7001.048, with operational aspects governed by Operational Airworthiness Regulations (OAREGs) published in AAP 8000.010 and technical aspects governed by Technical Airworthiness Regulations (TAREGs) published in AAP 7001.053. Figure 2 outlines the hierarchal relationship of the Defence Aviation Safety Program, policy and regulations.





Who's Who

Defence Aviation Authority (Defence AA)

Chief of Air Force is appointed the Defence AA. The Defence AA is accountable to the CDF and Secretary for establishing and managing the Defence Aviation Safety Program.

Operational Airworthiness Regulator (OAR)

CDF appoints the Deputy Chief of Air Force (DCAF) as the OAR. The OAR has published the operational airworthiness regulations in the ADF Operational Airworthiness Manual (AAP 8000.010).

Technical Airworthiness Regulator (TAR)

The CDF, through DI(G) OPS 02-2 has appointed Director General Technical Airworthiness (DGTA) as the TAR. The TAR is responsible for establishing and maintaining the regulatory framework for the design construction and maintenance of ADF aircraft and aviation systems. This includes the authority to prescribe, interpret, and revise airworthiness design standards. The TAR's regulatory framework is described in the Electronic Technical Airworthiness Management Manual (AAP 7001.053) and design standards in the Electronic Aircraft Design Requirements Manual (AAP 7001.054). [MILAVREG 1.6]



Operational Airworthiness Authority (OAA)

The Defence AA, through DI(G) OPS 02-2 will appoint OAAs as nominated by Service Chiefs and Group Heads. They are responsible for operational airworthiness and safety management for all aircraft types in accordance with their appointment. Responsibilities of the OAAs are further described on page 14. Commander Australian Fleet (COMAUSFLT) is the Navy OAA. Commander Forces Command (COMD FORCOMD) is the Army OAA and Air Commander Australia (ACAUST) is the Air Force OAA.

Technical Airworthiness Authority (TAA)

DGTA is appointed as the TAA. The TAA is responsible to the Defence AA and responsive Service Chiefs for recommendations regarding the issue of airworthiness instruments for aircraft types and AvSS. The TAA also communicates risks to safety from technical hazards to OAAs and the Defence AA. [MILAVREG 1.7]

Flight Test Approval Authority (FTAA)

The Defence AA has appointed two Flight Test Approval Authorities (FTAA). The Navy FTAA and the Army & Air Force FTAA are responsible for the airworthiness management of aircraft types allocated for the purpose of flight test. Flight test activities for the Navy are conducted by Aircraft Maintenance and Flight Trials Unit (AMAFTU) whilst Aerospace Operational Support Group (AOSG) conducts those for the Army & Air Force. [MILAVREG 1.8]



Airworthiness Board (AwB) Members

The AwB consists of two officers of star rank who are independent of the ADF airworthiness regulatory system. The AwB independently reviews the operational and technical airworthiness management and aviation safety of aviation systems within the DASP. [MILAVREG 1.9]

Director Airworthiness and Coordination and Policy Agency (DACPA)

DACPA acts as the principle representative of the Defence AA on matters concerning Defence airworthiness management. This includes formulation of Defence airworthiness policy, the development of MILAVREGs on behalf of the Defence AA and the development of OAREGs on behalf of the OAR. DACPA also provides secretariat support to the AwB, monitors the effectiveness of the DASP and maintains the Defence State Register. Additionally, DACPA is empowered to interpret MILAVREGs and OAREGs. [MILAVREG 1.10]

Figure 3 provides a schematic representation of the ADF Airworthiness Management System, including lines of both command and airworthiness responsibility.



Figure 3. ADF Airworthiness Management Structure

Airworthiness Regulation

Military Aviation Regulations (MILAVREGs)

MILAVREGs are published in the AAP7001.048 - Defence Aviation Safety Program Manual. They provide a framework through which all military aviation activities by Defence registered aircraft, non-Defence registered aircraft, Aviation Support Systems (AvSS), Unmanned Aircraft Systems (UAS), Synthetic Training Devices (STDs) and members of Defence are managed. The Defence Aviation Safety Program Manual takes precedence over this guidebook in all regards.

Operational Airworthiness Regulations (OAREGs)

The OAREGs are published in AAP 8000.010 – Defence Operational Airworthiness Manual. The Defence Operational Airworthiness Manual takes precedence over this guidebook in all regards. The OAREGs are organised by function with applicability to specific audiences. The breakdown of the OAREGs is shown in Figure 4 below.



Figure 4. Breakdown of Operational Airworthiness Regulations

Operational Airworthiness Authority (OAA) [OAREG 1]

Discussion of the Defence Operational Airworthiness system must begin with the regulatory responsibilities of the OAA. These responsibilities directly affect how operational airworthiness is managed within each operational domain.

An OAA is responsible for ensuring that:

- The conduct of operations with aircraft types and aviation systems within their domain are managed at appropriate levels by authorised persons and organisations; [OAREG 1.2.1]
- Flight test activities are appropriately managed or referred to an FTAA; [OAREG 1.2.1]
- Acquisition or modification activities within their domain are appropriately managed by authorised persons and organisations; [OAREG 1.2.1]
- Operational Airworthiness authority is only delegated to appropriate individuals and command levels; [OAREG 1.2.2]
- An appropriate assurance program verifies the compliance of operating elements with OIP relating to operational airworthiness [OAREG 1.3.3]
- An OAA must not delegate responsibility for recommendations to the Defence AA in respect of issue of any airworthiness instruments such as Australian Military Type Certificate (AMTC), Supplemental Type Certificate (STC), Service Release (SR), Synthetic Training Device Installation Operating Permit (STD IOP), Unmanned Aircraft System Operating Permit (UASOP) or temporary airworthiness instrument. [OAREG 1.2.2.f]

Delegation of Authority – Operational Airworthiness Authority Representative (OAAR)

The formal delegation of operational airworthiness authority to an OAAR is at the discretion of the respective OAA. Delegation to competent individuals within the OAA's domain ensures that operational airworthiness is managed at the lowest practicable command level, providing the greatest degree of operational flexibility within acceptable risk levels. Importantly, OAARs may not further delegate their authority. [OAREG 1.2.3]

Delegation of Authority – Operational Airworthiness Authority Representative (Acquisition) (OAAR(Acq))

For the introduction of new aircraft types, or for major changes to type design, the OAA may appoint an OAAR(Acq) to exercise a specified scope of operational airworthiness authority for activities leading to issue of an AMTC, SFP, AvSSC, STC, SR, IOP or UASOP. [OAREG 1.2.2]

OAA Safety Assurance

Safety assurance includes; desktop review of processes, review of incident and performance trends, formal and informal meetings, and audit activities. The OAA is responsible for ensuring that organisations and personnel within their operational domain comply with Command, Group and Unit orders and instructions. Similarly, ACPA, on behalf of the OAR, conducts safety assurance of activities in relation to the OAA, FTAA and TAA to assess compliance with MILAVREGs and OAREGs that are applicable to the organisation. For formal audits, trained teams who are largely independent of the command or management process under scrutiny are required to assess operational airworthiness compliance. [OAREG 1.3]

Conduct of Flying Operations [OAREG 2]

The conduct of flying operations by the ADF is regulated through three principle elements: flying management, operational rules and limitations, and operator qualification and training. OAREGs provide the necessary framework and guidance for OAAs to meet their airworthiness responsibilities.

Flying Management System [OAREG 2.1]

Flying Management is the systematic implementation of processes and instructions to safely manage the conduct of operations. The OAREGs require that Flying Management Systems (FMS) are maintained by the OAA/FTAA for each aircraft and system type under the scope of their appointment.



Operations [OAREG 2.2]

The ADF primarily operates Defence registered aircraft (refer page 23). Defence registered aircraft must be operated within certified limits to an approved Statement of Operating Intent (SOI) and in accordance with any necessary Orders, Instructions and Procedures (OIP). OIP are issued by the OAA/OAAR to specify operational rules for the conduct of operations within their domain. The OAA/OAAR is the authority for determining the extent of procedural control necessary to safely conduct operations for all roles, missions and tasks required of aircraft and aircrew under the scope of their appointment. In making these determinations, OAAs/OAARs are obliged to take due cognisance of advice from specialist agencies relevant to the nature of the operations. Such specialists may include; the aircraft Design Acceptance Representative (DAR) and/or the TAA, aviation medicine specialists, among others.

Operational Clearance [OAREG 2.2.15]

An Operational Clearance is an OAA approved mechanism to deviate from an aviation system's approved configuration, role, environment, limitation or condition, when mission requirements cannot be achieved otherwise.

The OAA must ensure Operational Clearances are presented at the next scheduled Airworthiness Board.

Qualifications and Training [OAREG 2.3]

OAAs/OAARs are responsible for ensuring qualification standards are prescribed and are appropriate for the purpose. The degree of synthetic training provided as part of the flying syllabus must be appropriate to the accreditation standard of the training devices used and the training objective.

Other aircrew operator qualification and ongoing training requirements must also be set. These include initial and continuation courses in, flying safety, Aviation Risk Management (AVRM), Crew Resource Management (CRM) and aviation medicine training, applicable to the aircraft type and role.

OAAs/FTAAs are to ensure appropriate standards for aircrew health and fitness, including aspects of fatigue are documented and that whenever fitness for flight is uncertain, an appropriate Aviation Medical Officer is consulted.

Ultimately, Commanding Officers will take into account this range of factors when authorising aircrew for flight in particular roles or duties.

New Aviation Systems and Modification [OAREG 3]

When new aircraft are brought into service, or when existing aircraft undergo a major modification, or are being redeployed in new roles, the OAA shall have regard to operational airworthiness requirements to ensure the that new or modified aviation systems are suitable for their approved roles and operating environment with an acceptable level of risk of loss of life or injury and damage to property.

New Aircraft

Changes to Aircraft Configuration, Role and Environment (CRE) [OAREG 3.1]

An OAA must ensure that changes to an Aircraft's Type Design and CRE are classified and managed to provide an acceptable level of airworthiness oversight by appropriate agencies and authorities relative to the impact of the change on the CRE of the Aviation System.

Type Certification of New Aircraft Types [OAREG 3.2]

For the introduction of new aircraft types to ADF Service, the OAA/OAAR(Acq) must ensure an operational airworthiness framework is maintained which assures safety of flight through examination of the aircraft's suitability to operate in the intended roles and environment.

Operations Prior to Service Release [OAREG 3.3]

For new aircraft, operations prior to SR may be required for acquisition development activity, production acceptance testing, limited operational test and evaluation, ferry flights, or other specific purpose. Where those operations are to occur within Australian Airspace, and involve ADF personnel, their operation is subject to issue of either a Special Flight Permit (SFP) (see page 24), or Airworthiness Directive (AD) (page 25), depending on the situation. Further guidance on the applicability of these instruments is contained in AAP 7001.048.



Service Release of New Aircraft Types [OAREG 3.4]

The OAA must be satisfied that the operational organisation is suitably prepared and resourced to commence flight operations at a defined and manageable rate of effort prior to recommending Service Release (SR) to the Defence AA.

New or Modified Configuration, Role or Environment [OAREG 3.5]

An OAA must ensure that substantial changes to an aircraft's CRE undergo Supplemental Role Approval (SRA) to ensure the impact on flying operations is adequately assessed and managed.

Flight Test [OAREG 4]

Authority to conduct flight test outside established limits and roles on ADF aircraft. [OAREG 4.1]

Operation of an aircraft beyond established limits and roles to determine safety, suitability or supporting operational procedures requires a structured approach in accordance with plans and procedures approved by a competent organisation. Flight Test must be conducted by qualified operators proficient for the scope of flying to be performed.

An FTAA may authorise Flight Test of a Defence registered aircraft or UAS (for which a UASOP has been issued) in accordance with a Flight Test Plan approved by a competent agency. Additionally, a Flight Test Permit will confirm the organisational suitability to conduct the testing and that the supporting technical and operational arrangements are sufficient to assure safety.

Operational Evaluation (OPEVAL) Activities on Defence Registered Aircraft [OAREG 4.2]

Flying Organisations that conduct OPEVAL activities for Defence Registered aircraft and Cat 2/3/4 UAS under the authority of an OAA must maintain specific areas of competence



relevant to criteria suggested by an FTAA but established by the OAA. The associated procedures must be approved by an OAA and detailed in the responsible organisation's Flying Management System. An FTAA will review OAREG 4.2 OPEVAL activities and provide feedback regarding the respective health of the FMS. [OAREG 4.2.5]

Participation of Defence Personnel in Flight Test and OPEVAL of Non-Defence Registered Aircraft [OAREG 4.3]

The Defence agency seeking to engage Defence personnel in Flight Test or Operational Evaluation on a non-Defence registered aircraft must ensure operational airworthiness management arrangements are endorsed by the FTAA. The FTAA must assure the OAA that Defence personnel involved in the proposed Flight Test or OPEVAL are exposed to a level of risk commensurate with an equivalent activity on a Defence registered aircraft prior to providing endorsement.

Operation of Non-Defence Registered Aircraft [OAREG 5]

OAAs are responsible for ensuring that an acceptable level of safety is maintained for the operation of non-state registered aircraft through an applicable flying management system as required by OAREG 2.1. Aircraft are to be operated in accordance with the applicable type certificate and operating instructions and aircrew operating the aircraft are competent and current to do so.

Aviation Support Systems [OAREG 6]

OAAs/OAARs accountable for Aviation Support Systems (AvSS) must ensure that operational airworthiness principles are applied to the operation of such systems. AvSS include aerodromes, rescue and fire fighting, aeronautical information, air battle management, air cargo delivery, air traffic management, air weapons ranges, meteorology, ship aviation facilities and terminal attack control.



Operation of Unmanned Aircraft Systems (UAS) [OAREG 7]

The outcome of OAREG 7 is to regulate UAS to ensure UAS operations are conducted at an acceptable level of safety to personnel, other aircraft and property, without undue compromise to operational flexibility that achieves the requirements of SFARP. Management of a UAS begins at the commencement of the acquisition process and continues throughout the lifecycle of the system. The degree of regulatory oversight applied to the operation of a UAS requires tailoring, as deemed appropriate, to suit the CRE of the system and associated risk.

A UAS Categorisation system based on required operational capability and associated risk forms the basis for application of the DASP Regulatory framework, as follows:

- a. Category 1 UAS
 - A Category 1 UAS, when operating in the intended Configuration, Role and Environment (CRE), is a system for which the outcome of a catastrophic failure can reasonably be expected to result in death or serious injury, or significant damage to property.
 - Category 1 UAS are characterised by a requirement to operate in any class of Airspace, including over populated areas.
 - Category 1 UAS must be managed in accordance with MILAVREG 2 Defence State Registration and Operation of Aircraft under issue of an SFP or AMTC / SR, unless managed as a non-Defence registered aircraft under MILAVREG 5.
- b. Category 2 UAS
 - A Category 2 UAS, when operating in the intended CRE, is a system for which the outcome of a catastrophic failure may result in death or serious injury, or significant damage to property.
 - Category 2 UAS are characterised by a requirement to operate in any class of Airspace with appropriate operational restriction; including limited flight over populated areas.
 - A Category 2 UAS must be operated in accordance with MILAVREG 2 under issue of a UAS Operating Permit (UASOP), unless managed as a non-Defence registered aircraft under MILAVREG 5.
- c. Category 3 UAS
 - A Category 3 UAS, when operating in the intended CRE, is a system for which the consequence of a catastrophic failure is unlikely to result in death or serious injury, or significant damage to property.

- Category 3 UAS are characterised by operations in Segregated Airspace only, where the UA of the system has a requirement to operate over sparsely populated areas, mission essential personnel and associated property, with appropriate operational restriction.
- A Category 3 UAS must be operated under issue of a UASOP by the OAA, unless managed as a non-Defence registered aircraft under MILAVREG 5.
- d. Category 4 UAS
 - A Category 4 UAS, when operating in the intended CRE, is a system for which the consequence of a catastrophic failure can reasonably be expected not to result in death or serious injury, or significant damage to property.
 - Category 4 UAS are characterised by the UA of the system having a collision energy contribution of less than 42 Joules, and operations confined to airspace less than 400'AGL and greater than 3nm from an aerodrome.
 - A Category 4 UAS must be operated in accordance with the requirements of the OAR.

Operational Airworthiness Management of Synthetic Training Devices [OAREG 8]

Synthetic Training Devices (STDs) provide an important and cost effective capability for training and qualification of ADF aircrew. STDs are required to meet accreditation standards applicable to the intended training operations defined within a Flying Management System.

Operational Airworthiness of Aviation Safety Management [OAREG 9]

To be issued.



Suspension of Flying Operations [MILAVREG 2.4]

At times the condition of an aircraft or an organisation supporting the operation of an aircraft may no longer support airworthy operations. At such times, or when reasonable doubt exists regarding the condition of an aircraft or organisation such that it may not support safe operations, operational commanders must suspend flying operations appropriate to the circumstances.

Operational commanders are encouraged to communicate well and regularly up and down their respective airworthiness and command chains to inform any decision to suspend flying operations. The type DAR and OAAR together with the applicable OAA and TAA are key figures able to provide advice in this area, as are DACPA and ACPA staff.

Implementation of the Regulations

The OAAs are responsible for ensuring that aviation operations within their domains comply with the operational airworthiness regulations. The intent of the OAREGs is met by each of the three Services as follows:

Navy

Implementation of Operational Airworthiness requirements for Naval aviation is primarily through ABR 5150 and subordinate Squadron orders, instructions and procedures.

Army

Implementation of Operational Airworthiness requirements for Army aviation is primarily though standing instructions issued by HQ Forces Command Aviation Branch. Local Squadron flying orders document location specific or aircraft unique requirements.

Air Force

Implementation of Operational Airworthiness requirements for Air Force operations is primarily through a system of Command, Group, Wing and Squadron standing instructions implemented within the Air Force flying Commands.



Defence Registration and Airworthiness Instruments

Defence Registration

Aircraft which are Type Certified, or granted a limited scope of flying under a SFP or AD, by the Defence AA are recorded in the Defence State Register. Type Certification and Service Release are therefore intrinsically linked to the acquisition of new aircraft or significant new capabilities which require an aircraft type to undergo major modification. Accordingly, Defence state registration provides the authority and necessary conditions and limitations for the operation of an aircraft type by Defence, within the operational and technical regulatory frameworks established by the OAR and TAR.

Defence also operates some civil aircraft under CASA Registration. The Service Chiefs are responsible for management of technical airworthiness of such aircraft in accordance with CASA regulations. The operational airworthiness management of any military component of flying conducted by ADF personnel using civil registered aircraft is the responsibility of the relevant OAA.

Australian Military Type Certificate (AMTC)

An AMTC is a document used by the ADF to certify that a particular aircraft type has been examined and accepted as meeting the airworthiness standards appropriate to the role, environment and design. The AMTC is applicable to Defence registered aircraft only and is issued by the Defence AA on the recommendation of the TAA and OAA, and the AwB. [MILAVREG 3.1]



Service Release (SR)

The SR is a document used by the ADF to declare that the operational and technical airworthiness infrastructure and management systems are in-place to support flight operations of an ADF aircraft type. Limitations may be imposed on the SR that impact on operation of the aircraft. Aircrew should be aware of any SR limitations to the aircraft they fly and the environment it is flown in. [MILAVREG 3.3]

Special Flight Permit (SFP)

An SFP is a document issued by the Defence AA that permits a limited scope of flying operations of an aircraft for the purpose of flight testing, ferry flights or limited initial transition training. An SFP specifies the scope of limited operations authorised, the applicable tail numbers and the operational, maintenance and engineering arrangements supporting the limited flying activity. The aircraft must be operated to an approved configuration with adequate support arrangements in place for the intended scope of operations. [MILAVREG 3.4]

Supplemental Type Certificate (STC)

An STC is a document used by the ADF to certify that a major change to the Type Design of a certified aircraft continues to meet appropriate airworthiness standards. [MILAVREG 3.2]

Flight Test Permit (FTP)

Having established the basis of a flying management system to support the flight test operations including appropriate levels of test personnel and experience, the FTAA may authorise Flight Test through an FTP. The FTP identifies the technical and operational airworthiness arrangements that underpins the Flight Test and allows commencement of the specified test operations. [OAREG 4.1.3]

Authority to Operate (AUTHOP)

An AUTHOP confirms the ongoing operational suitability and operational effectiveness of an Aviation Support System (AvSS) service output, including its applicable subsystems. An AUTHOP fulfils a similar purpose for an AvSS that Service Release does for aircraft.

Aviation Support System Certificate (AvSSC)

Each certified or registered aerodrome requires an individual AvSSC due to differing configuration, capability aspects, layout and other relevant areas. An individual AvSSC also allows an aerodrome to be afforded less or more restrictions than other similar aerodromes. An example of this is the civil use of an aerodrome.

Unmanned Aircraft System Operating Permit (UASOP)

A UASOP is an instrument which performs a similar purpose as the AMTC and SR does for manned aircraft.

Synthetic Training Device Installation Operating Permit (STD IOP)

Prior to the recognition of any training conducted and experience acquired on a flight simulator or a flight training device, an STD IOP must be issued. This instrument will detail a number of aspects of the device including the category, qualification levels and training credits that the device will provide as well as the operational, engineering and maintenance authority for the STD.

Airworthiness Directive (AD)

An AD is an instrument issued by the Defence AA to direct an immediate or unusual airworthiness management action.

ADs may be used to authorise temporary operations under conditions that compromise the certification basis for an aircraft (eg at increased gross weight), or to suspend flight operations, or to permit the carriage of passengers on an aircraft not certified to do so. In extreme circumstances, an AD may be used to authorise the conduct of operations with an aircraft that does not have a valid type certificate. [MILAVREG 3.6]

Note that the civilian AD (issued by the FAA or CASA) is a document specific to an aircraft type and normally associated with technical airworthiness. The Special Technical Instruction (STI) issued under the Technical Airworthiness Regulations is the ADF equivalent to a CASA or FAA AD.

Airworthiness Advisory Circular (AAC)

AACs are uniquely numbered documents issued by DACPA to provide additional guidance on extant regulations or policy. An AAC does not introduce or change existing policy. The AAC provides a vehicle for the dissemination of information and initiatives that positively improve airworthiness. Where appropriate, information will be transferred from AACs to the guidance chapters in AAP 7001.048 or AAP 8000.010 as part of the annual review process.

More information?

Airworthiness Coordination and Policy Agency

Director ACPA (DACPA)	02 612 87301
Deputy Director Airworthiness Coordination	02 612 87404
Deputy Director Regulations	02 612 87493
Airworthiness Regulations Desk Officer	02 612 87423
Safety Assurance Desk Officer	02 612 87426
Airworthiness Board Desk Officer	02 612 87087
Projects Desk Officer	02 612 87442

The ACPA website is:

http://intranet.defence.gov.au/raafweb/sites/ACPA

The DASP Portal website is:

http://intranet.defence.gov.au/dgta/WebPages/DAVREG/AMTR/DASP_Portal/ DASPPortal.htm

Key References:

DI(G) OPS 02-2 Defence Aviation Safety Program AAP 7001.048 Defence Aviation Safety Program Manual AAP 8000.010 Defence Operational Airworthiness Manual AAP 7001.053 ADF Electronic Technical Airworthiness Management Manual AAP 7001.054 Electronic Airworthiness Design Requirements Manual (eADRM) AAP 6734.001 Defence Aviation Safety Manual

Additional Operational Airworthiness references include:

- ABR 5150 RAN Aviation Instructions
- HQ Forces Command Aviation Branch Standing Instructions
- Defence Instructions (Air Force) Operations
- Air Command Standing Instructions Operations

Acronyms

AAC	Airworthiness Advisory Circular
AAP	Australian Air Publication
AwB	Airworthiness Board
ABM	Air Battle Management
ABR	Australian Book of Reference
ACPA	Airworthiness Coordination and Policy Agency
ACAUST	Air Commander Australia
AD	Airworthiness Directive
ADF	Australian Defence Force
AMAFTU	Aircraft Maintenance and Flight Trials Unit
AMS	Airworthiness Management System
AMTC	Australian Military Type Certificate
AOSG	Aerospace Operational Support Group
ASMS	Aviation Safety Management System
AvSS	Aviation Support System
AvSSC	Aviation Support System Certificate
AVRM	Aviation Risk Management
AWR	Air Weapons Range
CAF	Chief of Air Force
CASA	Civil Aviation Safety Authority (Australia)
CDF	Chief of Defence Force
CDR	Commander
COMAUSFLT	Commander Australian Fleet
COMFAA	Commander Fleet Air Arm
CRM	Crew Resource Management
DAA	Defence Aviation Authority
DACPA	Director Airworthiness Coordination and Policy Agency
DASP	Defence Aviation Safety Program
DCAF	Deputy Chief of Air Force
DDAAFS	Directorate of Defence Aviation and Air Force Safety
DG AVN	Director General Aviation
DGTA	Director General Technical Airworthiness
DI	Defence Instruction
FAA	US Federal Aviation Administration
FTAA	Flight Test Approval Authority
FTP	Flight Test Permit
IOP	Installation Operating Permit
MILAVREG	Military Aviation Regulation
NASPO	Naval Aviation System Program Office
OAA	Operational Airworthiness Authority
OAAR	Operational Airworthiness Authority Representative
OAAB (Acg)	Operational Airworthiness Authority Representative (Acquisition)
OAR	Operational Airworthiness Regulator
OAREG	Operational Airworthiness Regulation
	Officer-In-Charge
OIP	Orders, Instructions and Procedures
OPEVAL	Operational Evaluation
SFP	Special Flight Permit
SFARP	So Far As Is Reasonably Practicable
SOL	Statement of Operating Intent
SB	Service Release
STC	Supplementary Type Certificate
STD	Synthetic Training Device
STD IOP	Synthetic Training Device Installation Operating Permit
TAA	Technical Airworthiness Authority
TAR	Technical Ainworthiness Regulator
TABEG	Technical Airworthiness Begulation
UAS	Unmanned Aircraft System
LIASOP	Unmanned Aircraft System Operating Permit
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