

# SPORT AVIATION **SELF-ADMINISTRATION HANDBOOK 2010**



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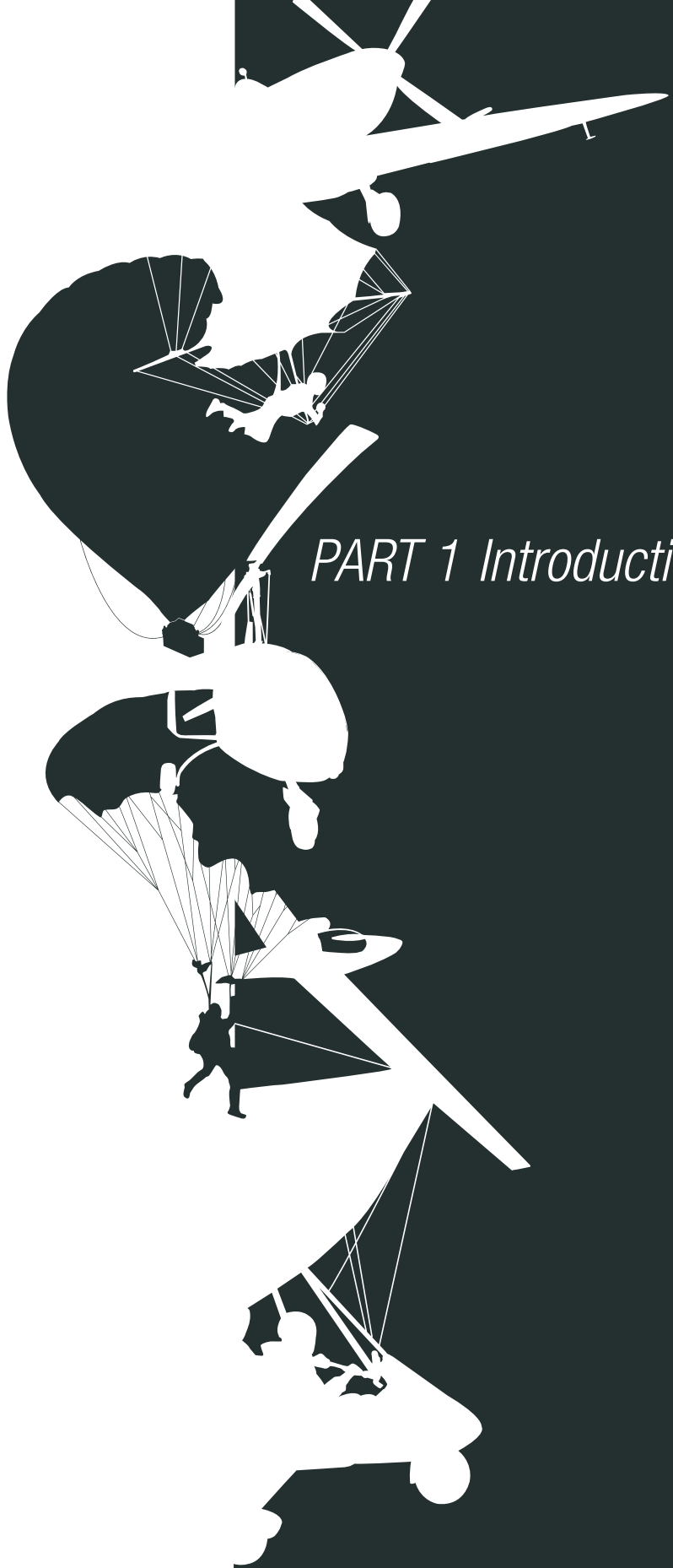


# *Better Practice Guide to Self-Administration*

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*PART 1 Introduction*

# Introduction

The Australian sport and recreational aviation industry crosses many sectors including light recreational and microlight aircraft, hang gliders and parachuting. General aviation aircraft operated in a recreational or private context are not included in this grouping.

Sport aviation aircraft make up almost half of the aircraft operating in Australia. In 2010 there were approximately 9000 sport aircraft administered by CASA and recreational aviation administration organisations. Notably, many of these aircraft are not designed or built to any recognised civil aviation standard and many of the activities are only allowed through exemptions to the legislation.

A person who takes part in this form of aviation is defined as an informed participant. Participants in sport aviation do so for their own enjoyment and are members of established organisations, known as recreational aviation administration organisations or RAAOs.

## SELF-ADMINISTRATION OF SPORT AVIATION

### WHAT IS SELF-ADMINISTRATION?

The differences within sport aviation activities have led to the existence of special oversight rules within Australian aviation legislation. Australian sport aviation operates under self-administration. This means that CASA sets the regulations and then works in close cooperation with the RAAOs, to make sure the regulations are applied and enforced. The RAAOs provide CASA with specialist knowledge and insight into the sport aviation industry.

The Civil Aviation Regulations 1988 were not intended to regulate this class of aircraft or activities. Currently, RAAOs overseeing these activities do so under exemptions and delegations. This set of rules allows specialised craft such as balloons and aircraft that don't meet certification standards to operate through a series of exemptions from the regulations applying to broader aviation activities. These exemptions are conditional.

The main condition is that if participants want to undertake one of the exempted activities they have to belong to a specified organisation. Without full membership people are not legally allowed to take part in these activities.

The organisations exist to oversee members' activities and assure CASA that activities are being conducted safely. CASA needs to be fully confident that RAAOs have the capacity to provide the safety outcomes required. If organisations can't assure CASA of this, then CASA can't allow the organisation to continue to administer its activities under the exemption.

Without the exemption, the activities allowed by it can't occur. That is, if the organisation doesn't assure CASA that it is meeting safety outcomes and oversighting activities, people wanting to fly under the exemption can't.

Without the exemption then, people wanting to fly need to meet the regulations that apply to other aviation activities.

### HOW DOES CASA MEASURE THE SUCCESS OF SELF-ADMINISTRATION?

Use of a risk-based assurance model is the central tenet of CASA's sport and recreational aviation policy and strategic framework. RAAOs are required to meet performance standards as well as undergo corporate (at headquarters) and functional (in the field) audits. These performance standards describe the capability and competence required of RAAOs to effectively self administer. The organisation must continually assure CASA that they are providing appropriate oversight of their sport aviation activities and managing risks. The Sport Aviation office within CASA works in close cooperation with the RAAOs, as well as receiving regular reports about activities and safety performance and auditing the organisations.

CASA's awareness of safety issues across the industry and measure of self-administration success is further enhanced through the use of industry risk profiles for each sector and its RAAO. These profiles provide a comprehensive picture of the current sport aviation industry, its risks and emerging issues and inform future oversight. The industry risk profile of each RAAO covers areas such as the organisational structure, governance arrangements, operations, activity profile, industry standards, current and emerging issues, and organisational culture.



## THE AUSTRALIAN SPORT AVIATION INDUSTRY

Sport aviation provides a wide range of activity options and an economical way to take part in aviation. It also offers a proving ground for new aviation concepts and technology. The Australian sport aviation industry includes manufacturers, training facilities, organised competitions and enthusiasts, all of whom contribute to the growth of our aviation industry.

### LIGHT RECREATIONAL AND MICROLIGHT AIRCRAFT

The category of aircraft commonly considered to be light recreational aircraft has advanced significantly since their emergence in the 1970s, from rather basic fabric and wire ultralight aircraft to the sleek composite types we see today.

The performance of modern light recreational aircraft easily equals, and in many cases betters, the lower end of general aviation aircraft types. Recreational pilots are increasingly using this type of aircraft for extensive cross country flying throughout Australia.

It should be noted that light sport aircraft are a distinct and different category from light recreational aircraft that may operate under CASA or RAAO rules and oversight.

Microlights or trikes rely on weight shift rather than the conventional three axis control. This means that there is no tailplane or control surfaces such as ailerons, rudder or elevator. The aircraft is controlled by the pilot shifting the aircraft's centre of gravity in relation to the wing.

### GLIDERS

Gliding originates from the earliest days of aviation. Modern gliders incorporate many technological advances, both in performance and innovative design features. Gliders are launched in a number of ways. This can be by a winch, aero-tow or self launching. The pilot's ability to locate and fly in currents of rising air allows the glider to remain aloft for a number of hours.

Cross-country flight in gliders, covering long distances capitalising on weather conditions is usually known by the term 'soaring'.

Competition flying forms a major part of the sport gliding with competitors seeking the fastest speed over a given route. Australia is recognised internationally as having excellent conditions for gliding.

### GYROPLANES

Modern light gyroplanes used by recreational flyers are generally small flying machines very different from the first gyroplanes developed in the 1920s. Until recently, gyroplanes were mostly homebuilt and flew from small grass fields. Now with increasing technological development, factory built light gyroplanes may be observed flying from established airfields. With advances in modern factory built gyroplanes we expect to see more of this type operating in Australia and attracting the interest of pilots from other areas of aviation and new aviators.

Although gyroplanes derive lift from a rotor, they differ significantly from helicopters in that the air flows up through the rotor rather than downwards. Gyroplanes are in constant autorotation and may be considered to behave conventionally i.e. similar to a fixed wing aircraft, in the case of engine failure albeit with a steeper glide angle. Gyroplanes are not subject to the same stalling phenomenon as fixed aircraft and are considered to be safer in this respect. When entering a condition of very slow flight a gyroplane will start sinking prompting the pilot to take corrective action.

### HANG GLIDERS

Hang gliding first occurred in the early 1960s in the form of kites towed by boats. Australia led the development of hang gliding technology, and in 1972 the first foot-launched hang glider flight took place. Since then the design and materials used in hang gliders has evolved significantly. Contemporary hang gliders may use materials such as tubing frame and sail cloth wing, or carbon fibre and epoxy for light weight strength. Hang gliders are generally controlled by the pilot shifting their body weight either back, forwards or to the side.

### PARAGLIDERS

Paragliding began in Australia with soaring parachutists launching from hills in the early 1980s. Paragliding increased in popularity when purpose-built paragliders were introduced a few years later.



A paraglider consists of a canopy attached to a harness. The canopy is made of two layers of fabric forming a wing-shaped bag. As the paraglider moves forward, openings at the front of the bag allow it to fill with air, pressurising it and making a standard aerofoil shape. To control the paraglider, the pilot holds a line in each hand and pulls the line depending on the direction they want to go, e.g. pulls the right line to go right.

## PARACHUTING

Recreational parachuting began in Australia in 1958. At that time parachute jumps were limited to those with written permissions from the Director General of Civil Aviation. Recreational parachuting increased in popularity to now see over 288,000 jumps being made each year. In the early 1980s tandem jumps started offering people the ability to experience parachuting without having to train for a solo jump. The popularity of tandem jumps has grown rapidly since then with about 69,000 tandem jumps made each year.

## WARBIRDS

The term warbirds generally refers to ex-military, replica and historic aircraft. These are registered with CASA on the civil aircraft register. CASA issues pilot licences and oversees the maintenance of warbirds. Under the Civil Aviation Safety Regulations (CASR) ex-military, replica and historic aircraft may operate under a Special Certificate of Airworthiness in the Limited Category, or as an experimental aircraft under CASR 21.191. This allows the aircraft to operate under a special set of conditions contained in CASR 21.189 and Civil Aviation Regulations (CAR) 262AM. For maintenance purposes, Limited Category aircraft are maintained as other Class B aircraft.

## AMATEUR-BUILT AND EXPERIMENTAL AIRCRAFT

Amateur-built aircraft generally refer to aircraft not built in a factory, but rather built from scratch based on either original or established designs or from a kit. When constructing from a kit the builder must have completed the majority of the build for it to be considered an amateur-built aircraft. CASA rules about this can be found in the CASR Part 21.

Experimental amateur-built aircraft include an aircraft that is fabricated and assembled by a person for their own education or recreation. CASA rules about this can be found at CASR Part 21.191(g).

An amateur-built aircraft may be registered with CASA as a VH aircraft, or if it meets certain performance, weight and design limitations it may be registered with RA-Aus or HGFA. These limitations include such elements as the aircraft being fixed wing, weighting up to 544kg and with places for only one or two occupants.

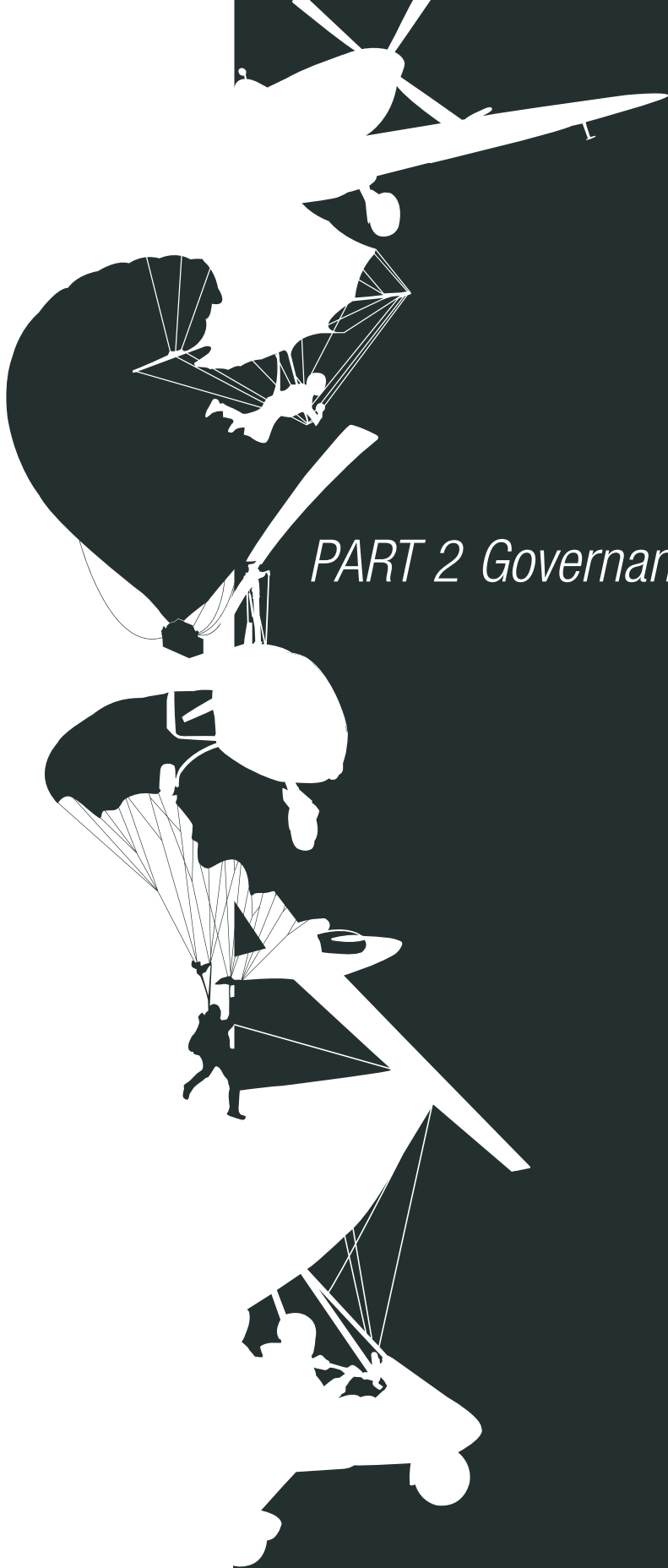
## MODEL AIRCRAFT, ROCKETS AND KITES

Part 101 of the CAR governs unmanned aeronautical activities, such as the use of unmanned moored balloons and kites, unmanned free balloons, unmanned rockets, unmanned aerial vehicles, model aircraft, and pyrotechnic displays. CASA oversees these activities.

## RECREATIONAL BALLOONING

Recreational ballooning refers to those pilots who hold a private balloon certificate issued by the Australian Ballooning Federation and who don't carry fare-paying passengers. CASA regulates commercial balloon operations such as those carrying fare-paying passengers on scenic flights. Commercial operations require an Air Operator Certificate and the pilot to hold a CASA commercial pilot's licence (Balloon).





*PART 2 Governance*

# Governance

Governance is defined as the system by which you direct and control the practice of your organisation.

*There are three key components of governance: compliance, assurance and risk management.*

These components reflect and integrate with your organisation's broader corporate governance arrangements which include corporate compliance, corporate assurance and enterprise risk management framework.

Simply speaking, effective governance provides the corporate structure for your safety efforts and not only makes sure that you are compliant, but also assures that you are safe.

In respect to safety oversight, your organisation should adopt a number of key activities and tools to assist your senior executives' and leaders' performance in this critical function, which is at the centre of your safety management system (SMS).

Good governance helps an organisation achieve its outcomes and obligations through sound planning and risk management. It provides a means to assist in decision making and to improve accountability.

It also helps to provide a framework for establishing responsibility to the organisation's members, the people served by the organisation and other stakeholders.

Corporate governance influences how the objectives of the company are set and achieved, how risk is monitored and assessed, and how performance is optimised. Effective corporate governance structures are made up of three main categories: They are compliance, assurance and risk management, represented in the 'Governance model' diagram below.



Components of good governance (Source: Global Risk Alliance, 2007)

Good corporate governance is how an organisation demonstrates it is effectively controlled. The three main components of governance depicted in the diagram above reflect compliance, how the organisation effectively achieved is statutory and regulatory obligations, secondly assurance which

is focused on providing confidence that things are happening the way they should and finally, the management of risk. These three elements need to be encased in good ethical practice and decision making by those that provide oversight to the organisation.



## COMPLIANCE

Compliance is an outcome of an organisation meeting its obligations. It is more formally defined as:

*“Adhering to the requirements of laws, industry and organisational standards and codes, principles of good governance and accepted community and ethical standards.”  
(AS 3806-2006)*

Compliance should not be seen as a stand-alone activity, as depicted in the governance diagram above; compliance should be aligned with the organisation’s overall assurance and risk management objectives. An effective compliance program will support these objectives. Compliance should, while maintaining its independence, be integrated with the organisation’s financial, risk, quality, environmental and health and safety management systems and its operational requirements and procedures.

An effective organisation-wide compliance program will result in an organisation being able to demonstrate its commitment to compliance with relevant laws, including legislative requirements, industry codes, organisational standards as well as standards of good corporate governance, ethics and community expectations.

An organisation’s approach to compliance should be shaped by its core values and generally accepted corporate governance, ethical and community standards.

The Australian Standard on compliance programs (AS 3806 – 2006) outlines 12 principles upon which a compliance program should be based:

1. Commitment by the governing body and top management to effective compliance that permeates the whole organisation.
2. The compliance policy is aligned to the organisation’s strategy and business objectives and is endorsed by the governing body.
3. Appropriate resources are allocated to develop, implement, maintain and improve the compliance program.
4. The objectives and strategy of the compliance program are endorsed by the governing body and top management.
5. Compliance obligations are identified and assessed.
6. Responsibility for compliant outcomes is clearly articulated and assigned.
7. Competence and training needs are identified and addressed to enable employees to fulfil their compliance obligations.
8. Behaviours that create and support compliance are encouraged and behaviours that compromise compliance are not tolerated.
9. Controls are in place to manage the identified compliance obligations and achieve desired behaviours.
10. Performance of the compliance program is monitored, measured and reported.
11. The organisation is able to demonstrate its compliance program through both documentation and practice.
12. The compliance program is regularly reviewed and continually improved.

Compliance management has a reason for its existence: it demonstrates sound corporate governance by the board in the management of company risks, one of which is compliance. Compliance management also adds value to the organisation in terms of reputation and sustainability.



## ASSURANCE

According to the Handbook of Governance, Risk Management and Control Assurance, “assurance relates to the likelihood that planned objectives will be achieved within an acceptable degree of residual risk i.e. it seeks to ensure that an acceptable level of accountability will be realised by those assigned responsibility and authority for the achievement of an objective. Assurance is sought by the person or body assigning the responsibility and authority.

The level of assurance is reliant on the effectiveness of the systems and culture put in place by those persons or bodies responsible for implementing and maintaining the control environment. It follows that the persons or bodies assigning responsibility and authority, as well as seeking assurance, are responsible for the implementation of systems that provide and enhance that assurance.”

There are normally two levels of assurance common to organisations, internal audits and external audits.

Internal auditors are generally internal to the organisation where the primary objectives are set by professional standards, the board and management.

External auditors are not part of the organisation. This role is fulfilled by the CASA Sport Aviation office. The primary mission of the external auditor is to provide an independent evaluation of the organisation’s level of compliance with regulations, Civil Aviation orders, and performance standards or Deeds of Agreement.

Assurance is a key element of any governance or oversight regime and can be applied at a corporate level, or specifically around safety assurance. By applying the four simple ‘assurance ladder’ steps to different parts of your organisation, your assurance program will soon be formulated.

The following four-step question ladder allows you to start formulating a practical and tangible assurance program.

**Step 1:** Who is the group or individual that needs assurance?

**Step 2:** What area of your program requires the statement or assertion that it is in hand and why?

**Step 3:** What level of assurance is required—how far do you go?

**Step 4:** How can I provide this level of assurance in a proactive way without being prompted?

When talking about assurance, it often makes more sense by substituting the word ‘confidence’ for assurance. So how you give someone confidence in relation to safety? Different people involved with your organisation at all levels require confidence around different things. When determining what level of assurance is required, the best place to start is in defining the group, individual or audience that actually requires assurance. Once you narrow down the group, the second part of this process is putting yourself in their shoes and understanding what it is they are not familiar with, or areas that may make them less confident.



## RISK MANAGEMENT

Risk is defined by the International Standards Organisation (ISO) 31000 as “the effect of uncertainty on objectives” (whether positive or negative).

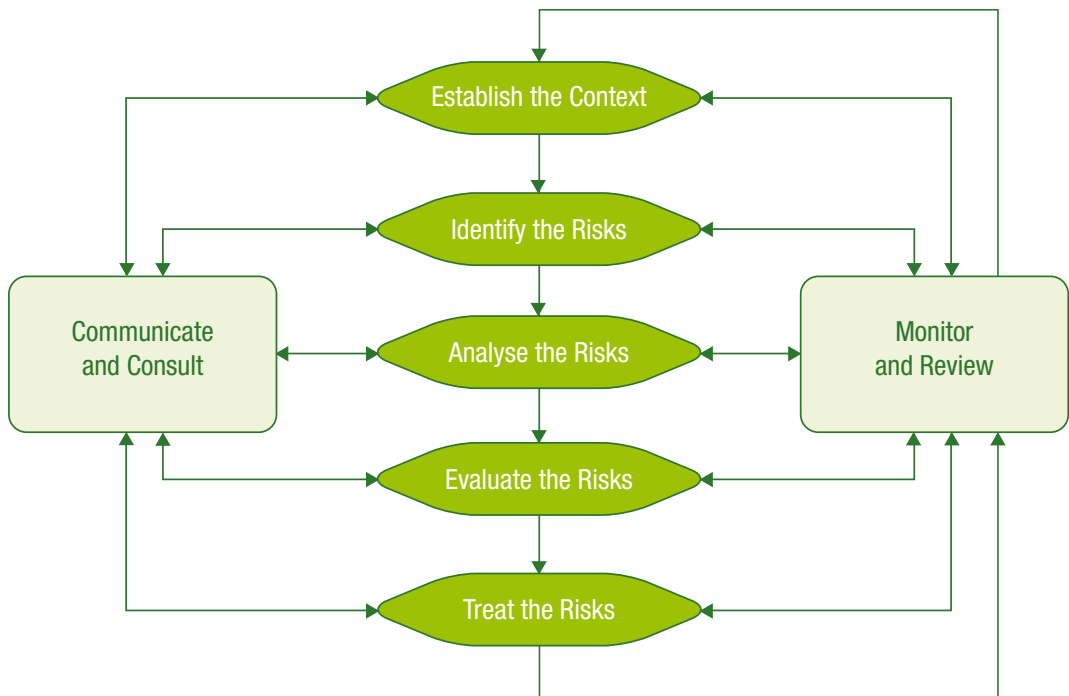
Risk management can therefore be considered the identification, assessment, and prioritisation of risks followed by coordinated and economical application of resources to minimise, monitor, and control the probability and/or impact of unfortunate events or to maximise the realisation of opportunities.

Risk management not only provides a mechanism for treating risks which might prevent an organisation from achieving its objectives, but also provides the flexibility for the organisation to respond to unexpected threats and take advantage of opportunities. Risk management therefore provides resilience.

*In short, corporate governance is the glue that holds an organisation together in pursuit of its objectives, and risk management provides the resilience.*

### RISK MANAGEMENT PROCESS

The ISO standard on risk management (ISO 31000) outlines the methodology and risk management process used throughout the world. The following pictorial model is consistent with ISO 31000 and provides the structure to classify, present and prioritise risk information.



The risk management process (Source: ISO31000:2009)



Below is a description of each of the steps in the risk management process:

### **Communication and consultation**

Communicate and consult with internal and external stakeholders as appropriate at each step of the risk management process. Throughout every step of the risk management process a decision is made as to what level of communication or consultation is required.

### **Establish the context**

Determine the strategic, organisational and risk management context, and establish the structure of the analysis and the criteria against which risk will be assessed. It includes identification and communication with stakeholders and the development of risk criteria that will be used to evaluate risk. This step is the most significant and sets the tone for the remainder of the assessment and management of risks.

### **Identify the risks**

Identify, as the basis for further analysis what can happen, why and how, including hazards, aspects and impact areas. Multiple risk identification methods are normally used to extract risk issues that are then run through the risk management process. Risk identification methods that could be used include surveys, stakeholder interviews, stakeholder workshops, document review and SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis.

### **Analyse the risks**

Analyse the risk in terms of consequence and likelihood, as well as the controls, and the range of consequences in the context of those controls. Consequence and likelihood may be combined to produce an estimated level of risk. Using the principles of the Reason accident causation model, a layering and classification process is then used to analyse the risk data. From this process, industry level risks are able to be identified. The consequence and likelihood of each of these risk issues are then assessed.

### **Evaluate the risks**

Compare the estimated levels of risk with the pre-established criteria. Risks can then be ranked to identify priorities for their management.

Risks identified as low priority can possibly be accepted without treatment, but subject to monitoring review. Where more than one risk attracted the same risk rating, sub criteria can then be applied to determine the ranking.

### **Treat the risks**

Develop and implement a management plan, which should include consideration of funding and other resources, and time frames. The effectiveness of the treatment option should be validated in this step to ensure confidence in the chosen minimisation option. This includes re-evaluation to determine the residual risk. Multiple treatments are identified to address each risk. They vary in their scope but are designed to complement each other and provide a comprehensive risk response.

### **Monitor and review**

It is to be noted that the context, the risks and their significance will change over time. The most critical aspect of the monitor and review stage of the risk process is the follow through and implementation of the risk treatment strategies. Ultimately it is these actions that will reduce the risk.

## **DIFFERENT LEVELS OF RISK MANAGEMENT**

In looking at the level and type of risk practice which has been defined over the past ten to fifteen years, a number of key contextual “groups” have emerged. These contextual groups now have a defined or accepted level of practice.

### **Enterprise risk management (ERM)**

Enterprise risk management or ERM is often described as “the set of elements of an organisation’s management system concerned with managing risk”. The application of ERM focuses at the corporate or the strategic level. It encompasses all business units or departments and examines the inter-relationships between departmental and specialist risk areas.

### **Venture risk management (VRM)**

An additional contextual group which requires regular risk planning includes organisations going through change or simply “new ventures”. Branding this contextual group into VRM, allows people to understand that the risk planning conducted on the new venture, project or change does not provide an organisational wide view or application of risk



management, but does assist in identifying specific risks and opportunities for that key venture.

It is important for board members to understand that the essence of any venture risk management plan is the effective implementation of treatment strategies once developed.

### **Operational risk management (ORM)**

Within every organisation, the delivery or the core product or service is viewed in terms of risk management as an “operational” context. It is recognised that risk management is the “culture, processes and structures” that are directed toward the effective management of potential opportunities while minimising adverse events.

At the operational level, it is generally found that the “structures” available are generally well developed and link to the “standard” or normal activities which are undertaken.

When challenged with the concept of formalising risk practice, many operational level people can not see how risk management can add value, often responding that we already “manage” risk. Operational level staff will often see procedures, team meetings, supervision, and training or qualification regime as the ‘risk reduction strategy already in place. This view is correct; however, it does not always cater for things that fall outside what has been defined as “normal”. The aim of operational risk management or ORM is to structure and standardise the “normal” and then provide a process to identify, assess and manage activities or issues that fall outside this norm.

## **SAFETY MANAGEMENT SYSTEMS**

“Good safety management is more than just a legal and moral requirement. Around the world, there is a growing recognition that safety programs can improve a company’s operating performance and profits as well as its safety defences.”

This statement was taken from CASA’s aviation safety management operators’ guide and reflects the fact that safety management has further benefits than the improvement of safety measures.

There are many different ideas people have about what managing safety involves; however, one of the more widely accepted definitions is one that the Civil Aviation Advisory Publication (CAAP) (2009) provides:

*“A safety management system is a business-like approach to safety. It is a systematic, explicit and comprehensive process for managing safety risks”.*

The inherent structure of a well-established safety management system allows for there to be a successful framework for good governance. This is because of structures such as the escalation of risks, communication channels, and documentation management processes. This is particularly important in the receipt of information by the board regarding safety-related matters. Without the appropriate communications channels such as regular safety committee meetings, safety alert processes, and information escalation, the board may receive a reduced level of ‘honesty’ in the safety information received.

Therefore, along with the appropriate compliance and assurance structures, safety and risk management structures and processes are an integral component of achieving good governance practices.



## THE KEY ELEMENTS OF AN SMS

A safety management system, or SMS, is a structured way to oversee and manage the safety risks of an organisation or industry. This SMS framework was developed using benchmarking of SMS requirements from regulators and industry practice from Australia

and around the world. Compliance mapping took place to identify these elements. This SMS framework is consistent with ICAO, CASA, CAANZ, Transport Canada, FAA and CAAUK's expectations for an SMS.



Components of a safety management system framework (Source: Aerosafe, 2009)



**Element 1: Safety governance and oversight**

Safety governance is defined as the system by which you direct and control the safety practice of your organisation. There are three key components of safety governance: safety compliance, safety assurance and safety risk management. These components reflect and integrate with your organisation's broader corporate governance arrangements which include corporate compliance, corporate assurance and an enterprise risk management framework.

**Element 2: Safety planning**

Effective and detailed planning, is a key component of this element of an organisation's safety management system. Your organisation should adopt a business-like approach to managing safety, which includes setting and updating your safety objectives and targets annually, task identification and allocation, resource planning and performance measurement.

**Element 3: Safety responsibilities**

Safety accountabilities and responsibilities should be outlined for your organisation. It is recognised that there are different levels of responsibilities for safety. These responsibilities need to be documented and updated as required.

**Element 4: Action management**

The best way to establish safety, as a core value, is to make safety an integral part of the management plan. This element requires a "process", identification of tasks to reduce risk, allocation of tasks, follow up and close out.

Components of the action management element of an SMS usually include:

- Incident and accident reporting system
- Closed loop reporting system
- Safety program activities
- Safety audits and evaluations
- Hazard management.

**Element 5: Safety policy and standards**

Safety policy and procedures are formal documents that form the basis for instruction on the philosophies, processes and practices required in an SMS. Within an organisation the company has a formal policy and document structure in which they have linked process and procedurally-based information on the SMS elements.

**Element 6: Safety assurance**

The safety assurance element of the SMS is aimed at providing confidence that safety risks are being managed, and the SMS is working the way it was designed to. The reassurance that is provided through the safety assurance module is required for all staff, stakeholders, insurers, the community and families.

Safety assurance is provided in many ways. Some key methods for the provision of assurance are:

- Internal and external audits
- Annual evaluation
- Internal and external inspections.

**Element 7: Operational risk management**

The operational risk management or ORP module of our SMS covers both the hazard and risk management elements of the SMS.

Each organisation must adopt three different levels of risk management planning, corporate risk profiling, venture risk management planning (VRMP) and operational risk profiling (ORP).

All levels of risk management planning are based upon the risk management process outlined in the International Risk Management Standard, ISO 31000.

**Element 8: Incident / occurrence management and reporting**

The aim of an occurrence reporting system, at a very basic level, is communication. The effective communication of occurrences can provide valuable information that can be used as an education tool to help reduce the risk of that event occurring again. Data on occurrences can be collected in a secure manner, allowing analysis of that data to be explored.



Utilising a web-based system allows the entry of data from almost any location, ensuring that information can be captured in a timely manner before any clarity of detail is lost. It also allows transparency of information across a variety of business units, and emphasises management's commitment to safety, which is extremely important if an organisation's members and staff are to feel comfortable using the system.

#### **Element 9: Safety communications**

The safety communications element of the SMS is a key component in developing an organisation's safety culture by increasing safety awareness and knowledge of safety and risk practice. As well as communicating safety-related information to relevant staff and members, it is also important to consider the role of safety promotions, which plays a role in raising safety consciousness amongst members, and providing regular reminders of their safety-related responsibilities to themselves and others.

#### **Element 10: Safety training**

The safety training component of an SMS is broad in scope and includes training on the SMS itself, as well as specific safety-related training courses. It is important to train staff and members in the skills, knowledge and competencies required to make the safety management system's processes and practices work.

#### **Element 11: Records and data management**

Part of a formal SMS is the systematic and logical organisation of safety and risk information. Safety practices are part of day-to-day operations and management and are usually embedded into operational procedures and practices. In conjunction with this, some specific safety data and information needs to be recorded so it is easily accessible and able to be used by all staff.

Control of documentation and data management ensures that safety and risk management information is communicated effectively, accurately, in a timely manner and remains accessible to management and staff members according to their particular requirements.

#### **Element 12: Cultural development**

The primary aim of an SMS is to develop and maintain a positive safety culture. It is also to ensure an organisation is committed to monitoring their safety climate and proactively guiding what activities are needed to shape the organisational culture.

In order to develop a positive safety culture, there is a link to creating an environment in one's organisation that will influence the behaviour of staff and members, which will in time shape the desired culture.





*PART 3 Performance Standards*

# Performance Standards

Performance standards provide a defined set of expectations that RAAOs work to in providing CASA with confidence that sport aviation has the necessary oversight to ensure that risk is contained to an acceptable level. This will provide the sport aviation industry with an oversight regime that instils confidence in its ability to provide a safe environment for participants, as well as other airspace users, and the general public.

Each organisation is required to continually assess how it meets the performance standards. Monitoring of performance is undertaken by CASA using three strategies – six-monthly reporting, annual auditing and ongoing engagement. CASA provides each RAAO with continual feedback on performance as well as an annual report card.

The performance standards focus on the supply of and proficiency in data and information management, enforcement, and each organisation's management system. The 10 performance standards are detailed below.

## INDUSTRY PROFILE

Understanding the size and scope of each sector allows CASA and RAAOs to define and profile the sector and then plan for new or emerging risks.

RAAOs compile and make available to CASA data on their sector of responsibility each six months. This varies slightly for each RAAO; however, common elements include:

- aircraft numbers
- aircraft types and numbers of each type
- current membership numbers
- activities undertaken i.e. flying training, fly-ins, etc
- key airfields used for training, fly-ins, etc.

## SAFETY RESULTS

As part of the RAAOs' Industry Risk Profile, the supply of and proficiency in safety data and information is key. Therefore RAAOs are to ensure that appropriate safety data and information management processes exist and provide CASA with a safety profile of their sector via six monthly reports.

This is to include:

- Accident and incident occurrences, including frequency and severity
- Accident and incident investigation and findings
- Records that safety analysis has been communicated to members.

## ENFORCEMENT

As a part of their procedures, administering organisations must ensure that their members comply with their rules. Where persistent, repeated or blatant breaches of CASA's standards occur, CASA can escalate disciplinary matters and prosecute these as breaches of the Civil Aviation Act 1988 or of the Civil Aviation Regulations. Such prosecution(s) may be initiated on the request of the RAAO if the organisation finds itself unable to enforce the standards. CASA may also take action against the administering organisation if it fails to meet its statutory or other responsibilities.

RAAOs are to have governance and disciplinary rules that address the following considerations:

- Each member and their activities must comply with the RAAOs operations manual.
- Each member must submit to the disciplinary jurisdiction of the RAAO for a breach of the requirements in the operations manual.
- The suspension of an authorisation given to a member by RAAOs may occur if RAAOs have evidence that a member has failed or is failing to observe the requirements in the operations manual.
- If a RAAO considers that its disciplinary procedures have failed or are failing to prevent unsafe conduct by a member or participant, this to be reported to CASA and notified in writing that a report has been made to CASA.



- Disciplinary action involving revocation of an authorisation given by RAOs must be in accordance with the principles of natural justice.

These governance and disciplinary rules should be applied within the context of a just culture. That is:

*“An organisational perspective that discourages blaming the individual for an honest mistake that contributes to an accident or incident. Sanctions are only applied when there is evidence of a conscious violation or intentional reckless or negligent behaviour.”*  
(CASA, CAAP SMS – 1(0), 2009)

Just culture is further defined as “a safety-supportive system of shared accountability where organisations are accountable for the systems they have designed and for supporting the safe choices of employees and consumers. Staff, in turn, are accountable for the quality of their choices.”

(The Just Culture Community – Organisational Safety and the Just Culture – overview, 2006)

## JUST CULTURE PRINCIPLES

A just culture within an organisation recognises that competent individuals will make mistakes, and even on some occasion exhibit risky behaviour, but has zero tolerance for reckless behaviour.

Just culture facilitates an open and fair culture that strikes the middle ground between a punitive culture, where the reaction is based on the severity of the outcomes, and a “blame free” culture, where no one is held accountable for their actions.

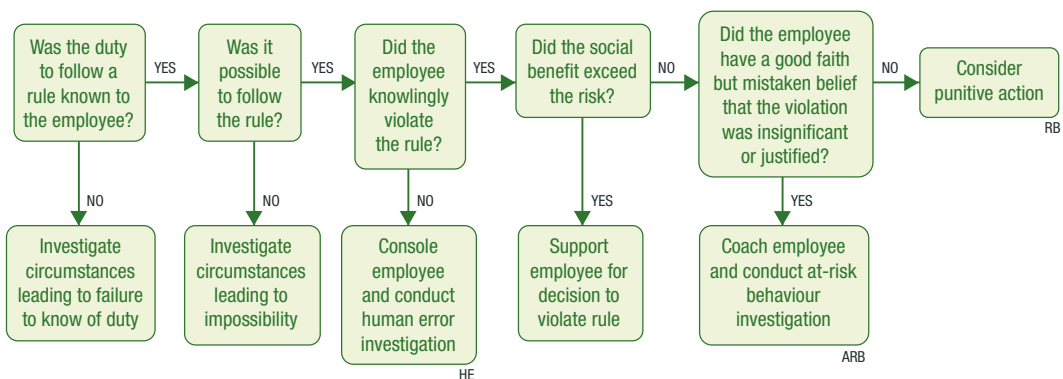
## JUST CULTURE IN ACTION

Flow charts, such as the just culture algorithm, can be used in deciding the best course of action following an incident. RAOs can use the flow charts to assist determining whether an incident is the result of human error, at risk behaviour or reckless behaviour, and act accordingly.

An aircraft maintenance engineer uses the incorrect part when repairing a landing gear in order to quickly finish the job so a flight scheduled for later that afternoon can go ahead.

The engineer is aware that it is not the part certified for use, but considers it a reasonable substitute and will allow the job to be completed in a timely manner.

Using the Just Culture flowchart, the action of the engineer is identified as ‘at risk behaviour’, and it is suggested that the employee undergoes coaching, to understand the need to undertake safe behaviour, and that the organisation conducts an investigation into the system which shaped the behaviour i.e. use of substitutes seen as acceptable or one-off occurrence?



Where working under a duty to follow a procedural rule within a system, an employee will be subject to disciplinary action when they have acted with reckless disregard toward the risk associated with non-compliance.

Just Culture flowchart (Source: The Just Culture Community, 2006)



## RISK PROFILE MANAGEMENT

As part of CASA's risk-based approach to surveillance and safety oversight, CASA requires each RAAO to maintain and monitor its industry risk profile. This industry risk profile is to identify and assess current and emerging industry risk issues and provide risk treatment strategies that provide confidence to CASA that the risks are known and are being proactively managed.

Management of the risk profile requires a joint approach to risk reduction as both CASA and the RAAO influence different aspects of risk reduction. The risk profile is developed on collaboration and is reliant on an active level of participation in the risk process. Updated annually, the risk profile is to be regularly reviewed by RAAO boards in their role of providing governance and safety oversight to the industry.

In respect to the performance measures RAAOs:

- Actively and openly participate in the development of the industry risk profile
- Identify and resource appropriate risk treatment strategies that reduce risk
- Have the Board review and monitor the industry risk profile, and in particular track and monitor the implementation of risk treatment strategies and the identification of any new or emerging risks
- Work collaboratively with CASA to reduce the overall risk profile of the industry
- Develop and maintain a risk-based assurance program designed to monitor oversight activities at the board level.

## OPERATIONAL CONTROL

RAAOs must have the resources such as skilled personnel and equipment to effectively manage their sector of aviation. This is demonstrated by the ability to establish, apply and enforce documented processes such as the operations manual, airworthiness manual, technical manual, and suite of other documents that RAAOs use in administering their aviation-related functions.

The RAAOs operations manual is the key document in its ability to effectively administer its area of responsibility. RAAOs are responsible for the preparation and maintenance of manuals describing standards and procedures for all operations under their control.

Operational and other manuals are to be regularly updated to provide for a changing environment and continuous improvement in safety outcomes. All aviation safety changes to manuals are approved by CASA as CASA is ultimately responsible for aviation safety. CASA may also require that certain material be inserted into the manual if a change does not reach an outcome acceptable to CASA.

CASA refers RAAO to 'AS/NZS ISO 9001:2008 Quality management systems – requirements' as a standard which operational control processes should reflect.

## ORGANISATIONAL COMPETENCY

For CASA to be confident that RAAOs have sufficient competence to oversight sport aviation, RAAOs are to have an appropriate management system for sport aviation activities and the overarching management structure whereby the organisation administers this sector of aviation.

This includes, but is not limited to, the following requirements:

- Accountabilities are defined and implemented across the organisation
- Governance arrangements are appropriate for the organisation to effectively oversight the sector
- Administrative capability is appropriate for the organisation to effectively oversight the sector
- Processes are appropriate for the organisation to effectively oversight the sector
- Executive management demonstrate appropriate competencies.

CASA refers RAAO to 'AS/NZS ISO 9001:2008 Quality management systems – requirements' as a standard which management systems should reflect.



## ACCOUNTABLE MANAGER

Accountable manager, for an RAAO, means the individual, appointed by the board of the organisation responsible for:

- ensuring that the organisation complies with its operations manual, its approval and CASA regulations;
- ensuring that the organisation is able to finance the provision of the oversight set out in its operations manual; and
- ensuring that the organisation has adequate resources available to enable the organisation to provide oversight in accordance with its operations manual.

## ORGANISATIONAL CONDUCT

RAAOs are required to demonstrate a level of conduct that provides CASA with confidence that sport aviation safety is the priority of the organisation. This is demonstrated through:

- Appropriate communication, both with CASA and the RAAOs members regarding safety related issues and their management
- Participation in the aviation community, for example the annual Sport Aviation Safety Forum
- Maintaining a cooperative relationship with CASA and addressing issues of concern in a constructive, cooperative spirit
- Actively supporting the concept of protecting the privilege to fly, rather than the right to fly.

## RESPONSIVENESS

To give CASA confidence in an RAAOs capacity to oversight its sector requires an acceptable level of responsiveness to safety issues. A high level of responsiveness is demonstrated by:

- Meeting timeframes agreed with or set by CASA
- Taking action on or responding to safety related issues in a timeframe acceptable to CASA
- Implementing changes in light of experience e.g. accident or incident findings, industry profile or emerging risk.



## SAFETY CULTURE

To assure CASA that RAAOs have implemented a management system and structure that provides an appropriate safety culture, RAAOs are to encourage participants to report openly on incidents and accidents and promote the outcomes of investigations as opportunities for improvement.

RAAOs are to:

- Establish their commitment to encouraging and continually improving safety culture by publishing an appropriate statement that is accessible to members and the public
- Implement open incident reporting regimes acceptable to CASA
- Communicate safety information and incident outcomes to members
- Promote transparency in dealing with safety information or reporting.

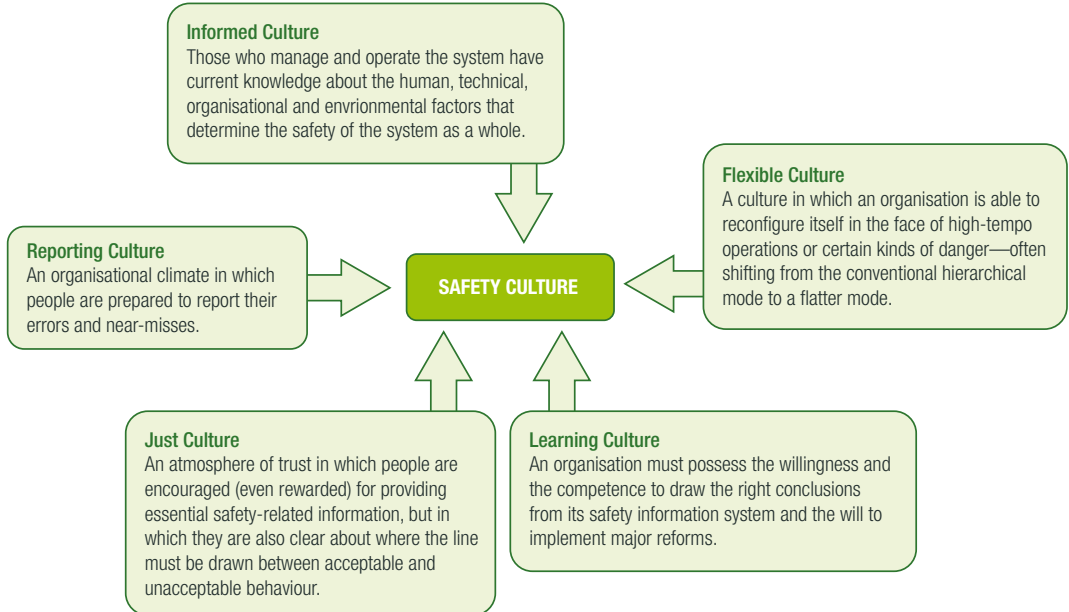
An organisation's safety culture should align with the principles of 'Just Culture'. Instilling a just culture encourages the reporting of safety-related information, with strict but fair consequences for unacceptable behaviour. An open reporting culture then contributes to the overall safety culture as participants are made to feel comfortable about reporting hazards and incidents without the fear of punitive action.



## JUST CULTURE AND SAFETY CULTURE

The instilling of a just culture encourages the reporting of safety-related information, with strict but fair consequences for unacceptable behaviour. An open reporting culture then contributes to the overall safety culture as participants are made to feel comfortable about reporting hazards and incidents without the fear of punitive action.

The border between acceptable and unacceptable behaviour, and the level of culpability associated with actions should be defined in the organisation. The diagram below shows how many factors, including a just culture, are involved in developing a safety culture in an organisation.



Contributing components in a safety culture (Source: Reason, 1997)

## SURVEILLANCE PROGRAM

RAAOs are to have governance and oversight processes that provide CASA with confidence that they have the necessary awareness of the sport aviation sector to successfully manage the sector activities.

This requires that RAAOs have

- Processes in place to undertake appropriate surveillance of the sector
- Central management of surveillance information and the ability to readily provide this information to CASA
- Processes in place to ensure that the board and executive are aware of, and accountable for, surveillance outcomes and safety issues.

CASA monitors performance against this standard by annual corporate (headquarters) and functional (in the field) audits and ongoing engagement with RAAOs.



## REFERENCES

### Recreational aviation administration organisations

- Australian Ballooning Federation
- Australian Parachute Federation
- Gliding Federation of Australia
- Hang Gliding Federation of Australia
- Model Aircraft Association of Australia
- Australian Sport Rotorcraft Association
- Recreational Aviation Australia
- Sport Aircraft Association of Australia
- Australian Warbirds Association Limited

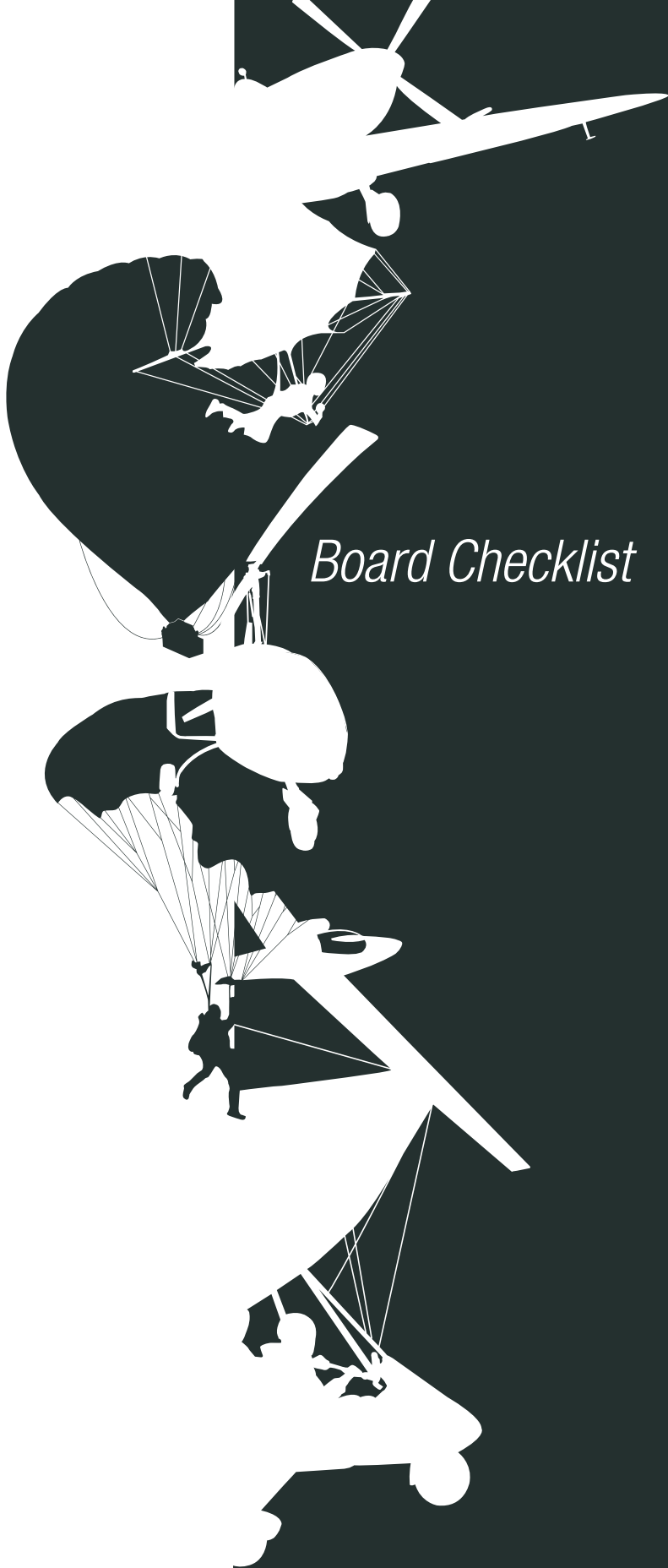
### Civil Aviation Orders

- CAO 95.4 Exemption from Provisions of the Civil Aviation Regulations—Gliders, Powered Sailplanes and Power-Assisted Sailplanes
- CAO 95.4.1 Exemption from Provisions of the Civil Aviation Regulations—Gliders Engaged in Charter Operations
- CAO 95.8 Exemption from Provisions of the Civil Aviation Regulations—Hang Gliders
- CAO 95.10 Privately Built Single Place Ultralight Aeroplanes—Exemption from Provisions of the Civil Aviation Regulations
- CAO 95.12 Exemptions from Provisions of the Civil Aviation Regulations—Gyroplanes Having an Empty Weight not in Excess of 250 kg
- CAO 95.12.1 Exemption from Provisions of the Civil Aviation Regulations 1988—2 Place Gyroplanes and Single-Place Gyroplanes Certificated as Light Sport Aircraft
- CAO 95.14 Exemption from Provisions of the Civil Aviation Regulations—Parasails and Gyrogliders
- CAO 95.32 Weight Shift Controlled Aeroplanes and Powered Parachutes—Exemption from Provisions of the Civil Aviation Regulations
- CAO 95.54 Exemption from Provisions of the Civil Aviation Regulations—Manned Balloons and Hot Air Airships - Private Operations
- CAO 95.55 Certain ultralight aeroplanes-Exemption from provisions of the Civil Aviation Regulations 1988

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*Board Checklist*

The following checklists have been developed to assist existing or incoming board members understand the responsibilities they are taking on as a board member of a recreation aviation administration organisation. Additionally the checklists articulate CASA's expectations of organisations and their board members in meeting their oversight responsibilities and ensuring the safety of sport aviation.

## CHECKLIST FOR INCOMING BOARD MEMBERS

- 1. Advise CASA of board personnel changes**
  
- 2. Receive & review RAAO board induction package from CASA**
  
- 3. Review the aviation regulatory framework by which your organisation operates:**
  - a. Civil Aviation Order/s
  - b. Operations Manual
  - c. Deed of Agreement between CASA and your organisation
  - d. CASA Performance Standards
  
- 4. Review aviation safety governance arrangements & resources for your organisation which includes:**
  - a. Board's structure and accountabilities for safety & risk
  - b. Board reporting processes
  - c. Safety oversight arrangements
  - d. Industry risk profile
  - e. Safety management system framework
  - f. Organisation's incident profile
  - g. Organisation's enforcement regime
  - h. Compliance register
  
- 5. Access the educational resources of the Sport Aviation Safety Network**
  - a. Register for Board education webinars
  - b. Ensure participation by nominated personnel
  
- 6. Determine your personal approach to how you will deliver effective safety oversight for your organisation**

## CHECKLIST FOR BOARD MEMBERS DURING THEIR TERM

### 1. Regulatory framework

- a. Keep up with regulatory changes
- b. Ensure that the operations manual and associated documents are updated
- c. Monitor the organisation's compliance register for accuracy
- d. Monitor the organisation's state of compliance
- e. Review CASA's corporate and operational audit reports and results

### 2. CASA Deed of Agreement

- a. Ensure the deed of agreement is executed on time
- b. Ensure that the deliverables listed in the deed of agreement are scheduled and will be undertaken on time

### 3. Industry risk profile

- a. Seek confirmation that the risk treatment strategies listed in the IRP are being implemented
- b. Identify and communicate new or emerging risks
- c. Identify risk treatment strategies for the new or emerging risks for inclusion in the IRP
- d. Communicate to the organisation's stakeholder the status of the industry risk profile (e.g. CASA, executives, members etc)
- e. Ensure that the industry risk profile is updated annually

*continued over* ➤

## CHECKLIST FOR BOARD MEMBERS DURING THEIR TERM (CONT)

### **4. Safety management system (SMS)**

a. Ensure the organisation's SMS framework is current and up to date

b. Ensure that the audit regime implemented within the organisation is appropriate and providing the level of assurance required by the board

c. Review incident profile and safety trends

d. Ensure that the safety personnel of the organisation are appropriately trained and equipped to undertake their role

e. Respond to significant safety concerns and ensure appropriate resource allocation is provided

f. Visibly and actively support safety initiatives and improvements

g. Actively participate in executive level education on governance, risk and safety management system to ensure your knowledge of these topics is up to date

### **5. Active participation in safety & risk culture development**

a. Provide support to the general manager/CEO for risk and safety initiatives

b. Actively drive the establishment and maintenance of a just safety culture

c. Advocate aviation safety practices

## GLOSSARY

### SAFETY MANAGEMENT SYSTEM

A safety management system is a business-like approach to safety. It is a systematic, explicit and comprehensive process for managing safety risks. The inherent structure of a well-established safety management system allows for there to be a successful framework for good governance.

### JUST CULTURE

An organisational perspective that discourages blaming the individual for an honest mistake that contributes to an accident or incident. Sanctions are only applied when there is evidence of a conscious violation or intentional reckless or negligent behaviour.

### GOVERNANCE

Governance is defined as the system by which you direct and control the practice of your organisation. Effective governance provides the corporate structure for your safety efforts and not only makes sure that you are compliant, but also assures that you are safe.

### COMPLIANCE

Compliance is adhering to the requirements of laws, industry and organisational standards and codes, principles of good governance and accepted community and ethical standards.

### ASSURANCE

Assurance is a key element of any governance or oversight regime and can be applied at a corporate level, or specifically around safety assurance.

### RISK MANAGEMENT

The industry risk profile is to identify and assess current and emerging industry risk issues and provide risk treatment strategies that provide confidence to CASA that the risks are known and are being proactively managed.

### RECREATIONAL AVIATION ADMINISTRATION ORGANISATION

A person who takes part in this form of aviation is defined as an informed participant. Participants in sport aviation do so for their own enjoyment and are members of established organisations, known as recreational aviation administration organisations.

## GLOSSARY OF TERMS

<b>CAO</b>	Civil Aviation Orders
<b>CAR</b>	Civil Aviation Regulations
<b>CASA</b>	Civil Aviation Safety Authority
<b>CASR</b>	Civil Aviation Safety Regulations
<b>RAAO</b>	Recreational Aviation Administration Organisation



