ASRA Safety Management System SMS Manual

2021

Australian Sport Rotorcraft Association

All correspondence should be directed to: safetymanager@asra.org.au

Revision History

Version	Date	Changes
1.0	05/2021	Creation of SMS Manual template.
2.0	06/2021	Draft version – key section text creation.
3.0	06/07/2021	Draft version – supporting section additions and edits (based on initial ASRA board feedback).
3.1	12/07/2021	Draft version – updated with additional board feedback comments.
3.2/4.0	14/07/2021	Final draft version – updated with remaining Board comments.
4.1	23/08/2021	Minor amendment: version includes updated safety manager email contact.

Approvals

Version	Date	Name & Position Approving
4.0	14/07/2021	Rick Elliott, ASRA President.
4.1	23/08/2021	Rick Elliott, ASRA President.

Copyright

Table of Contents

1. Abbreviations, Acronyms & Definitions

AIP	Aeronautical Information Publication		IR	Incident Registrar
AIRS	Accident Incident Reporting System		IRM	Immediately Reportable Matter
ALARP	As Low As Reasonably Practicable		M	Member
ALOS	Acceptable Level of Safety		MOS	Manual of Standard Procedures
AM	Accountable Manager		OM	Operations Manager
ASMP	Aviation Safety Management Plan		PIC	Pilot In Command
ASRA	Australian Sport Rotorcraft Association		RRM	Routine Reportable Matter
ATSB	Australian Transport Safety Bureau		SAI	Safety Assurance Indicator
CASA	Civil Aviation Safety Authority		SASAO	Self-Administering Sport Aviation Organisation
CASR	Civil Aviation Safety Regulations		SC	Safety Committee
CAO	Civil Aviation Orders		SLA	Service Level Agreement
CAR	Civil Aviation Regulation		SM	Safety Manager
CFI	Chief Flying Instructor		SME	Subject Matter Expert
ERP	Emergency Response Plan		SMS	Safety Management System
FI	Flying Instructor(s)		SPI	Safety Performance Indicator
FOD	Foreign Object Damage		TM	Technical Manager
GN	ASRA Gyro News (Quarterly magazine)		TP	Third Parties
GSE	Ground Support Equipment		TSI	Transport Safety Investigation
HFO	Head of Flight Operations		V	Visitor
ICAO	International Civil Aviation Organisation		XC	Cross Country
IO	Independent Operator			

1.1. Related Definitions

Hazard	A condition, event or circumstance that has the potential to cause harm to people or damage to aircraft, equipment or structures.
Immediately Reportable Matter (IRM)	An immediately reportable matter is a serious transport safety matter that covers occurrences such as accidents involving death, serious injury, destruction of, or serious damage to vehicles or property or when an accident nearly occurred. Under section 18 of the TSI Act, immediately reportable matters must be reported to a nominated official by a responsible person as soon as is reasonably practical. The list of immediately reportable matters is contained in the TSI Regulations.
Incident	In relation to aircraft means an occurrence, other than an accident, associated with the operation of the aircraft which affects, or could affect, the safety of operation.

Injury	Means injury not requiring medical assistance and excludes fatal or serious injuries.
Maintenance	Means any work carried out on the aircraft, and is to include: (i) Scheduled servicing – hourly or calendar based, (ii) Rectification/Repairs, (iii) Modifications, and (iv) Any Airworthiness Directives, Service Bulletins/Instructions etc.
Pilot Certificate	Meaning a pilot (or Instructor) certificate issued by ASRA.
Pilot-In-Command	Meaning the pilot responsible for the operation and safety of the aircraft during flight time.
Risk	The potential outcome from the hazard and is usually defined in terms of the likelihood of the harm occurring, and the severity if it does.
Routine Reportable Matter (RRM)	A routine reportable matter is a safety matter that has not had a serious outcome and does not require an immediate report but safety was affected or could have been affected. Routine reportable matters include a non-serious injury or the aircraft suffering minor damage or structural failure that does not significantly affect the structural integrity, performance or flight characteristics of the aircraft and does not require major repair or replacement of the affected components.
Safety	The state in which the probability of harm to persons or property is reduced to, and maintained at, a level which is an acceptable level of safety (ALOS) through a continuing process of hazard identification and reduction.
Safety Management System	A systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures.
Serious Injury	Defined as any injury, other than fatal which: (i) Requires hospitalization for more than 48 hours commencing within 7 days from the date the injuries were received, or (ii) Results in the fracture of any bone (except simple fractures of fingers, toes or nose), or (iii) Involves lacerations which cause hemorrhage, nerve, muscle or tendon damage, or (iv) Involves injury to external organ, or (v) Involves second- or third-degree burns affecting more than five percent of the body surface.
Shall	Mandatory.
Should	Recommended, but not mandatory.
Third Parties	Other airfield users, maintenance organisations, suppliers and other parties we conduct business with.
Will	Mandatory.

Note: For related definitions of 'Accident' and 'Serious Incident' – refer Appendix 2: ERP, section: 'Definitions'. For other related definitions, refer the Aeronautical Information Publication (AIP).

2. Introduction

This document has been developed to describe the ASRA Safety Management System (SMS).

Our SMS is one component of our oversight and governance regime which is designed to manage the safety risks of ASRA and its members.

ASRA has adopted the following three (3) principles to influence the design, development, implementation and maturity of our SMS and associated safety program.

(i) *We have adopted an SMS to demonstrate our strong governance:*
ASRA recognises that our SMS is one way we can demonstrate to the Regulator, the public, other airspace users, our staff, members and stakeholders that we are effectively managing safety as part of our governance arrangements.

(ii) *We have adopted a risk-based approach:*
ASRA's risk-based approach enables us to focus on those safety issues that could impact of our oversight as a SASAO on the safety of our members while they are engaged in ASRA related activities.

(iii) *ASRA commits to sharing knowledge, information and experience:*
We are committed to sharing our knowledge, information and experience with other SASAOs and with our members, staff, and industry stakeholders.

2.1. Document Audience

This document is intended to be read by all members of ASRA and will be available to other organisations operating at locations where ASRA members fly. ASRA members have access to review this material in the normal course of their membership with ASRA, their ongoing training and, bi-annual flight reviews etc. All members are required to contact the SM if further information or clarification is needed.

An electronic version of this document is available through the ASRA website.

2.2. Document Revision / Version Control

Once an SMS version is approved/released, any subsequent request to change the SMS will be reviewed by the SM and AM and if/when agreed, will be edited and sent as a proposed update version to the ASRA Board for consideration. Pending Board approval, acknowledgement will be shown by a new 'sign off' (and date) as formal approval by the ASRA President. The updated version will then be communicated to members via the respective link on the ASRA website (consideration will also be given to sending an electronic copy via email to members and associated entities and/or notice given in the GN).

If any ASRA member has a suggestion for improvement, whether for inclusion of new material or clarification of existing material, they are encouraged to send the suggestion to the SM at safetymanager@asra.org.au

3. Safety Policy, Objectives and Responsibilities

3.1. Safety Policy

Our commitment is to:

- Develop and embed a safety culture in all our activities that recognises the importance and value of effective aviation safety management and acknowledges at all times that safety is paramount.
- Clearly define for all members their accountabilities and responsibilities for the development and delivery of gyroplane safety.
- Minimise the risks associated with aircraft operations to a point that is as low as reasonably practicable/achievable.
- Ensure that externally supplied systems and services that impact upon the safety of our operations meet our safety standards.
- Continue to develop and improve our safety processes.
- Comply with all legislative and regulatory requirements and standards.
- Ensure that all members are provided with adequate and appropriate gyroplane safety information and training, are competent in safety matters and are only allocated tasks commensurate with their skills and experience.
- Ensure that, as far as practicable, skilled and trained resources are available to implement safety strategy and policy.
- Continue to evaluate our safety performance with industry objectives and/or targets.
- Maintain consistently high levels of safety performance in all our aviation activities.
- Aim to continually improve our safety performance.
- Conduct safety and management reviews and ensure that relevant action is taken.
- Ensure that the application of our safety management system is integral to all our activities, with the objective of achieving consistently high safety standards and performance.

3.2. Accountabilities & Responsibilities

This section describes the responsibilities of relevant positions/roles within ASRA, as well as the general responsibilities of all our members.

The ASRA Board & Board Members

The ASRA board is comprised of volunteers elected by the members, and is the peak management body of ASRA. Besides setting overall policy and direction, individual board members provide support through undertaking projects and tasks associated with the operation of ASRA.

The board is ultimately accountable for all safety outcomes and is responsible for:

- ensuring effective safety systems are in place and operational,
- ensuring consistent reporting to CASA and other authorities as required,
- ensuring availability of resources to support and maintain safety systems,
- ensuring a just culture of safety first is fostered and promoted,
- establishing and maintaining of the ASRA Safety Policy, and
- ensuring that the SMS requirements of the CASA deed are met.

Accountable Manager (AM)

The AM has overall responsibility for the performance and supervision of ASRA's Safety Management System (SMS).

The AM must (amoung other things):

- establish and promote the safety management policies required by the Deed of Agreement between ASRA and CASA,
- have been appointed with responsibility and accountability for the SMS to ensure it is properly implemented and performing to requirements,
- have control of the financial and human resources required for the proper implementation of an effective SMS,
- have an awareness of their SMS roles and responsibilities in respect of the safety policy, safety standards and safety culture of the organisation, and
- ensure that an individual known as the Safety Manager (SM) is either nominated, appointed or elected.

Safety Manager (SM)

The SM is appointed by ASRA and reports directly to the AM and must ensure that the AM is kept properly informed on safety matters.

The SM is not the sole person responsible for safety however, the person is responsible for the administration and facilitation of the SMS.

Ideally the SM should possess operational management experience and an adequate technical background to understand the systems that support the operation. They should have a sound understanding of safety management principles, typically acquired through formal training and practical experience.

Irrespective of other duties, they will have responsibilities and authority for, but not limited to, ensuring:

- that those processes needed for the SMS are established, implemented and maintained,
- that ongoing evaluation, review and fine tuning of the safety program is undertaken,
- safety awareness and a positive safety culture is promoted,
- liaison with CASA and ATSB on safety-related issues is undertaken as required,
- lessons learned by SASAOs are exchanged and acted on,
- incident and accident investigations are undertaken and their findings reported to members,
- an immunity-based reporting system, which includes the ongoing identification and management of hazards, is maintained,
- safety documentation is kept up to date (including the ASRA Safety Report/Risk Form),
- SMS related training is conducted and/or made available to members,
- oversight of the internal and external SMS audit programs, and
- the ERP is maintained/updated.

Safety Committee (SC)

The SC will be chaired by the SM *[currently proposed to include the ASRA President (P), Vice President (VP), Operations Manager (OM), Technical Manager (TM), Incidents Registrar (IR) and any other related members appointed by the ASRA Board].*

The role of the SC includes, but is not limited to:

- overseeing operational safety,
- managing hazard identification,

- implementing hazard mitigation or corrective actions,
- making recommendations or decisions concerning safety policy and objectives,
- defining safety performance indicators and setting safety performance targets for ASRA,
- reviewing safety performance and outcomes,
- managing safety training and related promotion activities, and
- assessing the impact of safety on operational changes and activating hazard analysis as appropriate.

SC meetings shall be 'minuted' and held at least bi-annually whereby a quorum will be considered to be 3 attendees. SC issues will be treated as a specific agenda item and 'minutes' will be recorded accordingly.

Operations Manager (OM)

As mentioned above the OM reports to the ASRA Board and AM however, the role is specifically responsible to the AM for the following relating to the ASRA SMS:

- promote and teach aviation safety to instructors,
- maintain operational safety standards,
- make operational decisions about safety matters,
- review and encourage good, or discourage poor operational decisions made by ASRA pilots, flying instructors and trainees,
- practice the just safety culture,
- promote reporting of incidents and make reports as required,
- set a good example on safety matters, and
- encourage pilots and flying instructors to attend ASRA and CASA safety seminars.

[Note: the 'Operations Manager' title is aligned/equivalent to the new CASA terminology of "Head of Flight Operations"]

Flying Instructors (FI)

Flying Instructors are responsible to the OM for the following:

- promote, practice and teach safety management,
- maintain operational safety standards,
- make operational decisions about safety matters,
- review and encourage good, or discourage poor operational decisions made by trainees,
- maintain an overview of the environment, conditions and practicability of the safety management plan to their training activities,
- report incidents and hazards,
- practice & impart knowledge about the just safety culture,
- impart knowledge about safety decision making,
- set and provide a good example with safety, and
- encourage trainees to participate in safety and if required to attend meetings.

Members (M)

All ASRA members must:

- recognise safety as an important part of aviation activity,
- make safe decisions based on their training and the examples set by flying instructors,
- ensure that they comply with all safety policies, procedures and practices set by ASRA,
- be responsible and accountable for monitoring for hazards and for reporting each identified hazard

through the ASRA reporting system,

- report each incident or accident that they are involved in, witness or become aware of, and
- understand their expected treatment under the just culture method of dealing with mistakes and violations.

Third Parties (TP)

The provision of services supporting gyroplane activities may involve third party service providers, contractors, and suppliers. As a contracting organisation, ASRA holds overall responsibility for the safety of services provided by the contractor and specifies the safety standards to be met.

Therefore, ASRA will where practicable, evaluate the third party's previous safety record and any regulatory breaches prior to entering into any agreement.

In addition, ASRA will ensure that the third party understands their responsibilities relating to this SMS.

Third Party interactions may also occur with other organisations that operate from a location during an ASRA sanctioned event.

Such organisations will operate under their own SMS. Where any conflict between SMS requirements occurs, this will be resolved on the day through discussion between authorised personnel from each organisation.

Visitors (V)

ASRA and other organisations that operate on airfields where our members operate will have visitors from time to time to observe or participate in our activities.

ASRA members have a duty of care to visitors to ensure that they remain safe whilst on the property. Therefore, visitors may be briefed on relevant SMS related items. Note: determining that a visitor has received such a briefing is the responsibility of all members on the airfield on the day.

4. Emergency Response Plan (ERP)

4.1. Preparedness

ASRA will review potential risks for its operations and develop a list of issues to be used for an ERP. This includes but is not limited to:

- service provider/host location SMS/ERP,
- roles,
- communication protocols,
- equipment, and
- contacts.

4.2. Response

The ERP will be activated in the event of a major occurrence. It is designed to ensure that the following is in place prior to an adverse event occurring:

- orderly and efficient transition from normal to emergency operations,
- delegation of emergency responsibilities,
- assignment of emergency responsibilities,
- authorisation by key personnel for actions contained in the plan,
- coordination of efforts to cope with the emergency,
- safe continuation of operations or return to normal operations as soon as possible, and
- planned and coordinated action to ensure the risks attributable to a major safety event can be managed and minimised (using as required, such forms as the ASRA Safety Report and Risk Form).

4.3. Review and Test of the Plan

The SM will develop an ERP training exercise that will also be used to test the adequacy of the ERP - which may be coordinated with other relevant organisations such as host location service providers.

5.   Documentation

All documentation relating to the SMS is contained within this manual, and will be reviewed and updated as required – when warranted by proposed changes. Notwithstanding these amendments, a maximum of 3 years between revision reviews.

Copies of this manual will be maintained by the SM. Access and distribution will primarily be via the ASRA website however, in certain circumstances also made available via electronic means and sent to specific members.

Advice on updates to the SMS will be via an announcement on the ASRA website and GN magazine (or in certain circumstances via electronic means e.g., email, sent to specific members).

5.1.   Associated Documentation

Documentation that is considered associated and/or relevant to the SMS includes (but not limited to):

- ASRA Constitution & By-Laws,
- ASRA Enforcement Scheme,
- related ASRA documents e.g., Operations Manual, Pilot Training Manual, etc.,
- related ASRA forms e.g., incident report form, etc.,
- the ASRA Risk Register,
- 'minutes' from related meetings (including ASRA Board meetings),
- meeting notes from related CASA forums attended,
- correspondence from past CASA audits,
- member views expressed from the ASRA Survey 2020,
- feedback from flying instructors, senior instructors and CFI's,
- related technical and/or third-party reports, and
- risk management related documentation.

[Note: given confidentiality of certain aspects of ASRA operations, members of the public will not have access to all such documents.]

5.2.   Recognition and Inclusion of Human Factors in the SMS

Human factors (HF) are a critical consideration within ASRA. Aircraft build, maintenance, use of technology and physical flight control are examples all-encompassing of HF, additionally pilots are humans that present HF issues. Regulatory frameworks (policy, procedures etc.) are written, applied and governed in some way by humans – essentially, every facet of our environment (structure, regulatory, legal, procedural, physical/operational etc.) is ultimately affected in some way by HF and therefore, it is imperative that we consider human performance in some form of error causation.

In short, ASRA considers HF as an important consideration also within this SMS, including how the SMS has been developed, how it is implemented/applied and enforced. Note also that an environment of 'Just Culture' has also been an important feature (noted in s.6.7).

6. Safety Risk Management

Safety Risk Management is how ASRA identifies from threats and hazards, the risks and their impacts, therein determining mitigations to ensure we have an acceptable level of safety [incorporating an 'as low as reasonably practicable' (ALARP) based principle (for details, refer s.6.9)].

6.1. Overview

ASRA's safety risk management process starts with identifying the hazards affecting the safety of members (incl. visitors, contractors etc) during their flying activities and then assessing the risks associated with these hazards.

Once the level of risk is identified, appropriate remedial action or mitigation measures can be implemented to reduce the risk to an acceptable level of safety. These will then be evaluated to ensure effectiveness.

Key explanatory notes:

(i)   **A hazard** is anything that could cause harm, damage or injury, or have a negative consequence, such as bad weather, mountainous terrain, FOD, lack of emergency equipment, high workload/fatigue or use of alcohol and other drugs, etc.

(ii)   **A risk** is the chance of something happening because of the hazard and, using formal risk assessment procedures can be objectively measured combining the likelihood of it occurring with the consequence resulting from it.

6.2. Hazard & Risk Identification

Hazards and risks can only be controlled if their existence is known. The aim will be to identify hazards and related risks from a range of sources including, but not limited to:

•   brain-storming using experienced personnel,
•   development of risk scenarios,
•   trend analysis,
•   feedback from training,
•   safety surveys and operational oversight safety audits,
•   monitoring of normal operations,
•   investigations of accidents and incidents, and
•   information exchange with other SASAOs.

Any ASRA member can raise/complete an initial Safety Report/Risk Form (Part 1) however, it is then the SM who would receive the related documentation pertaining to the identified hazards and risks therein completing the subsequent stages of the Safety Report/Risk Form (Parts 2 and 3). Updates being made to the AM (and ASRA Board) before being added to the ASRA Risk Register.

This process will allow over time, a 'database' of reportable hazards and risks enabling us to:

•   identify 'hot spots' that need particular administrative oversight and attention, and
•   when enough data are collected, conduct trend analysis which can provide the basis for improvement of hazard identification.

6.3.   Risk Assessment

The SM will manage and report on related risk assessment activities. Other staff members with the relevant expertise may be called from time to time by the SM to assist, but the overall responsibility will reside with the SM.

An initial step of any risk assessment process is to determine the consequence and likelihood of the hazard/risk. Considering any current mitigation measures, an assessment of the severity is made in terms of the worst possible realistic scenario.

After the development of an initial risk assessment, the ongoing process includes an evaluation of the information gathered – for example, information contained within the Safety Report/Risk Form, as well as commissioning of further data as required.

From initial completion of the Risk Form, the ASRA Risk Register will be used to finally record the level of risk which is determined by the relationship between the likelihood of an incident occurring from the hazard/risk, and the consequence caused by the hazard/risk noting that the relationship between likelihood and consequence determines how dangerous the hazard/risk is.

The process includes an initial evaluation of the information contained within the completed Safety Report/Risk Form (as well as commissioning and consideration of any additional data if required) before AM (& Board) acknowledgement and formal lodging of the hazard/risk to the Risk Register.

6.4.   Risk Mitigation

Mitigation measures are actions, controls or changes, such as changes to operating procedures, equipment or infrastructure, to reduce either/both the consequences and/or likelihood. Risk mitigation strategies generally fall into four categories (also refer 'Hierarchy of Controls' in s.6.9 for additional related information):

- **Avoidance**: The operation or activity is cancelled or avoided because the safety risk exceeds the benefits of continuing the activity, thereby eliminating the risk.
- **Reduction**: The frequency of the operation or activity is reduced or action is taken to reduce the magnitude of the consequences of the risk.
- **Segregation**: Action is taken to isolate the effects of the consequences of the risk or build in redundancy to protect against them.
- **Procedures and Rules**: Procedures and/or rules are used to manage the risk to an ALOS.

Prior to introducing measures to reduce or eliminate the risk, the SM will carry out a re-assessment of risk. This is done to ensure that any measures that are introduced do not lead to other hazards/risks being introduced into the system.

The SM will then prepare and implement a treatment plan that shall be kept with relevant documentation such as the Safety Report/Risk Form, etc. They may will also prepare a periodic report/update to the SC.

6.5.   Monitor and Review

ASRA understands that there is a need to monitor and review the effectiveness of all stages of the risk management process. During the risk assessment process, the assumptions, methods, data sources, analyses, results and reasons for decisions will be recorded by the SM. This data will then be used to support our related procedures and processes. This is also important for continuous improvement and achievement of our safety objectives and targets.

Risks and the effectiveness of treatment measures need to be monitored to ensure changing circumstances do not alter priorities.

6.6. Communicate and Consult

Having completed an initial Safety Report/Risk Form and the ASRA Board's acknowledgement in to the ASRA Risk Register, the Risk Register will then be used as the summary reference 'tool' wherein to communicate and consult/update on risks and agreed mitigations.

New risks and hazards are only added to the register as safety reports/risk forms are generated following such times of periodic review, and following incident reports that identify new or changed risks etc.

6.7. Reporting Systems

ASRA understands that through the safety reporting system, underlying situations or conditions that have the potential to endanger the safety of gyroplane operations can be identified. Greater levels of reporting, even what may be classified as minor issues, will allow us to monitor our safety performance and to identify safety trends.

The investigation process will not focus solely on the active failures, as they are not the root cause of the event. All investigations will attempt to address the actual factors that contributed to the event.

Just Culture

A just culture acknowledges that human error is a normal consequence of human activity and there is a need to manage it by supporting systems and practices that promote learning from past errors. It encourages open reporting of near-miss occurrences and member participation in safety issues and investigations.

A just culture is transparent and establishes clear accountability for actions. It is neither 'blame free' (awarding total immunity for actions), nor 'punitive' (enacting a disciplinary response regardless of whether acts were unintentional or deliberate).

A just culture supports learning from accidents and incidents. Any event related to safety, especially human or organisational errors must first be considered as a valuable opportunity to improve operations through experience feedback and lessons learnt.

ASRA stresses that no blaming of individuals will take place when that person has made an honest mistake. However, no blame does not mean no responsibility - Sanctions will only be applied when there is evidence of a conscious violation, intentional reckless or negligent behaviour.

Internal Reporting System

ASRA will ensure that all members are encouraged to actively participate in the safety reporting system. Safety reports and/or risk forms will be submitted using the online Incident Reporting system available through the ASRA website (https://www.asra.org.au/report-an-incident/).

All incident reports are automatically forwarded to the ASRA SM and/or Incidents Registrar. Upon receipt of a completed safety report and/or risk form, the SM will evaluate/assess and prioritise (completing Parts 2 and 3 of the Safety Report/Risk Form process).

Due to the nature of the activities carried out by ASRA, it may at times be required to submit safety reports/risk forms to other organisations. This task will be carried out by the SM.

Statutory Reporting Requirements

ASRA will comply with the statutory reporting requirements of the Transport Safety Investigation (TSI) Act 2003 (including CASA Deed of Agreement, to report quarterly statistics) in relation to accidents and serious incidents that affect the safety of aircraft.

6.8. Safety Surveys

Confidential online safety surveys with members will be conducted periodically and key findings from the survey will be recorded, presented to the ASRA Board, and later published in the GN. Findings and observations will be reviewed and acted upon by the Board, AM, SM and SC.

6.9. Summary to Risk Management Approach

Identification of Severity

The severity of the risk is determined with reference to the following table attributes:

<table>
<tr><td rowspan="5">4</td><td rowspan="5">Severe</td><td>Death</td></tr>
<tr><td>Extreme breach of legislative or policy requirement</td></tr>
<tr><td>Extreme property damage</td></tr>
<tr><td>Extreme harm or financial loss</td></tr>
<tr><td>Systemic serious misconduct</td></tr>
<tr><td rowspan="4">3</td><td rowspan="4">High</td><td>Extensive injury to person/s</td></tr>
<tr><td>Substantial breach of legislative or policy requirement</td></tr>
<tr><td>Major property damage</td></tr>
<tr><td>Major harm or financial loss</td></tr>
</table>

<table>
<tr><td rowspan="4">2</td><td rowspan="4">Moderate</td><td>Injuries requiring medical treatment other than first aid</td></tr>
<tr><td>Minor breach of legislative or policy requirement</td></tr>
<tr><td>Moderate property damage</td></tr>
<tr><td>Moderate level of harm or financial loss</td></tr>
<tr><td rowspan="4">1</td><td rowspan="4">Low</td><td>Minor injuries requiring first aid treatment</td></tr>
<tr><td>No breach of legislative or policy requirement</td></tr>
<tr><td>Minor property damage</td></tr>
<tr><td>Minor harm or financial loss</td></tr>
</table>

The next step is to then consider any current mitigation measures and assess the likelihood/probability of the risk occurring.

Likelihood of Occurrence

The likelihood of the risk is determined with reference to the following table:

5	VERY HIGH	>90%	Risk has often occurred
4	HIGH	70-90%	Risk has occasionally occurred
3	MEDIUM	30-70%	Similar risks have been known to occasionally occur
2	LOW	10-30%	Risk has rarely occurred
1	VERY LOW	<10%	Risk has not occurred before

The next step is to use the Risk Tolerance Matrix to assess how tolerable the risk is using the results obtained from the assessment of the severity and likelihood.

Risk Tolerance Matrix

Using the risk severity and likelihood, the risk level (score) is determined, for example:

		1	2	3	4
	LIKELIHOOD	**LOW**	**MODERATE**	**HIGH**	**SEVERE**
5	**VERY HIGH (>90%)**	5	10	15	20
4	**HIGH (70-90%)**	4	8	12	16
3	**MEDIUM (30-70%)**	3	6	9	12
2	**LOW (10-30%)**	2	4	6	8
1	**VERY LOW (<10%)**	1	2	3	4

Note: Score colours as per 'Calculated Risk Level' column contained within the ASRA Risk Register.

Risk Level Assessment

The risk level (score) from the risk tolerance matrix determines the action required to manage the risk, for example:

20	EXTREME	Immediately cease activity, assess and mitigate with controls implemented to significantly reduce risk. Detailed treatment plan required urgently; SM/AM involvement ongoing.
10-19	HIGH	Risk is likely and needs SM/AM attention and treatment plan as appropriate with regular monitoring.
4-9	MEDIUM	Requiring attention and/or monitoring as appropriate e.g., instructor level if applicable to specific training location and/or student pilot.
2-3	LOW	Manage through clear and concise communication and/or training, however also consider removing risk from ASRA Risk Register.
1	VERY LOW	This type of risk has not happened before and will not require further assessment – remove risk from ASRA Risk Register.

Note: The results of the risk tolerance assessment are entered by the SM. If the risk is mitigated by ASRA practices and/or procedures and results in an ALOS, then no further treatment is required. Score colours per 'Calculated Risk Level' column contained within the ASRA Risk Register.

Risk Mitigation

Where the risk level is above the acceptable level, risk mitigation is required to reduce the overall level of risk. It is anticipated that the risks identified will be mitigated in accordance with the 'ALARP' principle (outlined below).

The ALARP principle

The concept of 'As Low As Reasonably Practicable' or 'ALARP' is commonly referred to for risks with significant safety or environmental consequences and is shown in the diagram below. The concept is also applicable for other risks.

The approach is to typically divide risks into three generic bands, and discuss/assess as follows:

a. An upper band where adverse risks are intolerable whatever the benefits the activity may bring and the risk reduction measures are essential whatever the cost.

b. A middle band where costs and benefits are taken into account and opportunities balanced against potential adverse consequences.

c. A lower band where positive or negative risks are negligible, or so small that no further risk treatment measures are needed.

Where risk is close to the intolerable level it is expected that the risk will be reduced unless the cost of reducing the risk is grossly disproportionate to the benefits gained. Where risks are close to the negligible level then action should only be taken to reduce the risk where benefits exceed the costs of reduction.
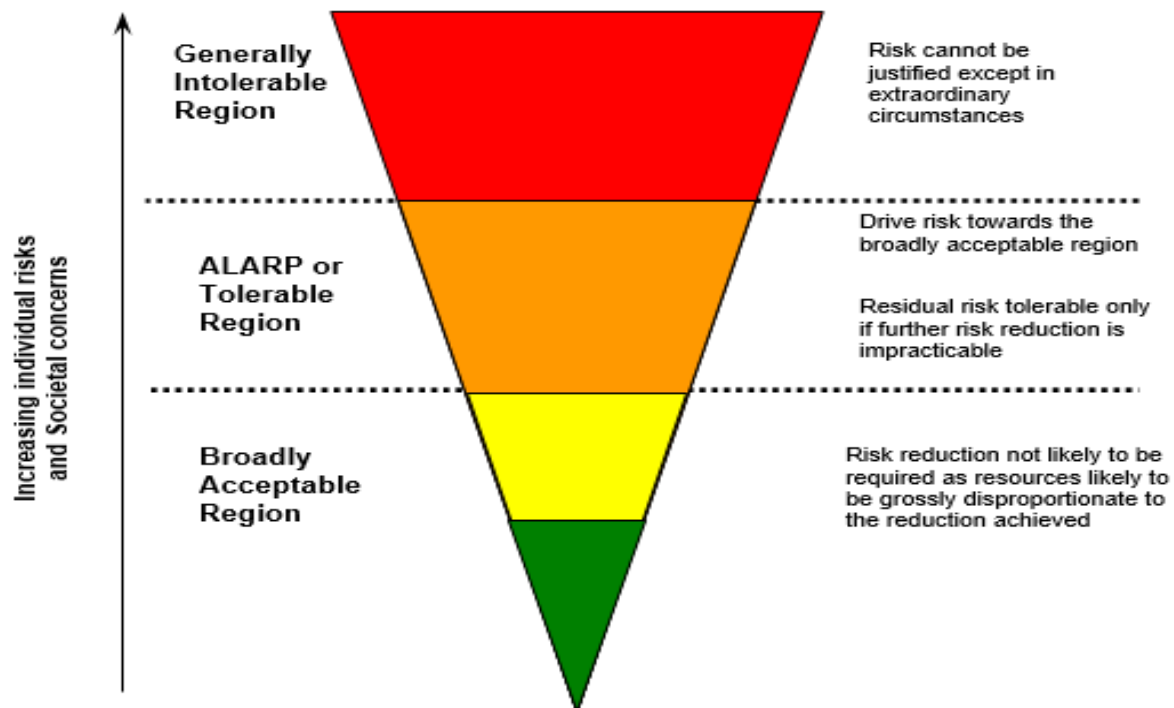
In addition, for any risks identified some form of risk control solution should be developed using the hierarchy of controls, a risk control must be initiated for all risks (see next page).

Hierarchy of Controls
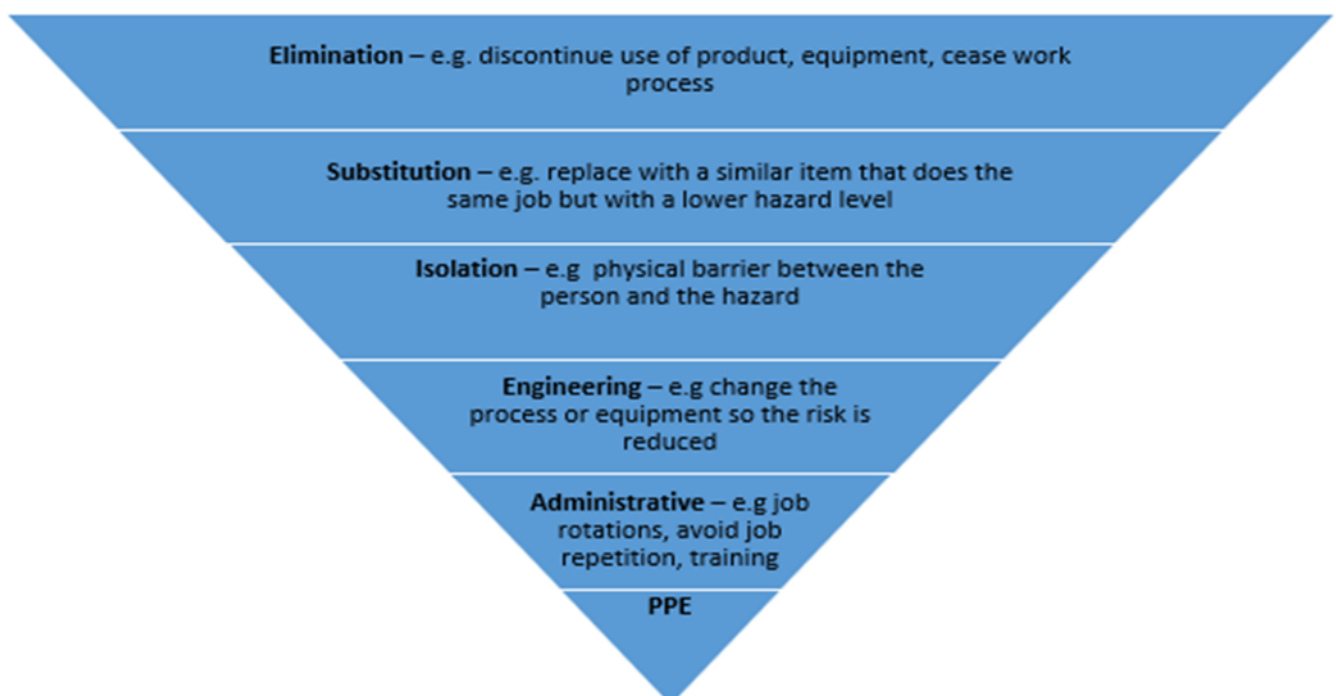
This stage will be carried out by the SM with assistance from the SC (and applicable Subject Matter Expert 'SME' if/when required). Mitigation measures will be selected from any of the four mitigation types described earlier e.g., s.6.4: 'avoid', 'reduce', 'segregate', and 'procedures and rules'.

The mitigation mechanisms will involve actions required to carry out the mitigation which are recorded along with the person/position responsible for the action.

Check the Residual Risk

With the additional controls in place, the risk severity and likelihood are again assessed and the residual risk level is determined. If the resulting residual risk is still above the permitted risk level, then additional mitigation mechanisms must be considered.

Monitor and Review

ASRA understands that there is a need to monitor and review the effectiveness of all stages of the risk management process. The SM will record each stage of the risk management process. This will include assumptions, methods, data sources, analyses, results and reasons for decisions. This data will then be used to support related safety assurance procedures and processes.

Review of the hazards, controls and risk levels will be conducted in accordance with the review requirements shown against each hazard/risk.

6.10. Safety Assurance

Safety assurance is how ASRA demonstrates that our SMS is working.

Safety assurance monitors the performance and effectiveness of the SMS. This will ensure that hazard identification, risk assessment and mitigation processes are being followed effectively and the appropriate mitigation measures are being implemented and working as intended.

Safety Performance Monitoring and Measuring

ASRA will monitor its safety performance by reviewing Safety Performance Indicators (SPIs), for example:

- Accident and incident reports.
- Flying breaches.
- Insurance claims and complaints (if applicable).
- Safety surveys.
- Safety audit findings.
- ATSB reports.
- CASA reports.

It is understood that this data may be limited and therefore it will be important to investigate individual events involving ASRA members and their gyroplanes. It is the role of the SC to conduct periodic review of these SPI and communicate performance to ASRA members.

Internal Safety Investigation

The SM will ensure all safety investigations are carried out and the process/findings documented by an appropriately qualified person and/or SME. The SM will also act as the point of contact during any investigations carried out by ASRA or other organisations.

The purpose of any safety investigation is to find systemic causes and implement corrective action – not to apportion blame to individual(s). The initial risk assessment of the event or hazard will be used to determine whether or not a safety investigation is required.

A record of all safety investigations will be kept by the SM.

Safety Audit Process

The SM will carry out safety audits at intervals of not more than 12 months. The focus of the audits will be on; the SMS, performance of ASRA, its services, and training. This will include, but is not limited to:

- adequate resource levels,
- compliance with approved safety procedures and instructions,
- maintaining required levels of reporting performance,
- achievement of safety policy/objectives, and
- effectiveness of interventions and risk mitigations.

A record shall be kept and the SM is responsible for ensuring that any required actions are carried out and that the AM, Board and SC are kept informed.

Change Management

Changes within the service provider/s equipment, facilities or procedures may result in the creation of hazards that could impact on safety. In the main, changes are made to meet ASRA's demands, and the service provider/s need the flexibility to meet these requirements. However, whilst the changes need to be made effectively and efficiently, ASRA's focus will be on implementing the changes safely. Service provider/s will identify the changes likely to occur that would have a noticeable impact on:

- resources – material and human,
- management direction – processes, procedures, training, and
- management control.

Typical areas that will require the application of change management procedures include:

- introduction of new equipment and/or procedures,
- change in key personnel, and
- new contracted services.

The SM will keep a written record of all change management processes including the ASRA Risk Register and implementation plan.

Continuous Improvement of the Safety System

ASRA understands that continuous improvement of the safety management system requires:

- maintenance – the objective of which is to maintain current technological, managerial, and operating standards, and
- improvement - which is aimed at improving current standards.

The SC will, at each SC meeting, carry out an ongoing review of the SMS process ensuring that:

- it is meeting its safety objectives and targets as set by the SC,
- safety performance is monitored and measured against the objectives and targets, and

- identified hazards are addressed in a timely and appropriate manner.

A key part of this process is the ongoing development and improvement of the SMS.

Where possible improvements to the overall ASRA SMS are identified, the SC will provide this feedback to the ASRA Board via the SM.

6.11. Safety Promotion

Safety Promotion is how we communicate and promote the SMS to our members and stakeholders.

Safety Training and Education

All members (incl. visitors, contractors etc) will be provided access to read the SMS documentation, being made available via website link(s). Copies of the SMS will also be available to any airfield in use with an ASRA sanctioned event.

Safety Communication

To ensure that all members and contractors are up-to-date with identified and resolved hazards/risks and are aware of any changes to our safety management system and any other safety matters affecting their activities, the SM may use the following means to distribute the information, for example:

- operational briefings,
- articles in GN,
- messages to ASRA's email list, and
- posts on the ASRA forum.

ASRA understands that everyone plays a vital role in the creation of a positive safety culture and that their involvement and support of all aspects of Safety Promotion is essential.

ASRA will provide safety communication to its affiliated Clubs that may include trends, safety bulletins, performance data, safety procedures and updates.

The SM will be responsible for ensuring that all relevant safety communication is available to members.

Any ASRA member is welcome at any time to submit a query or suggestion regarding the SMS to the SM at safetymanager@asra.org.au

6.12. Implementation of SMS

The complete implementation of the ASRA SMS is to be a phased process over the next 12-to-18-month period. There are aspects of the ASRA SMS which are already in place however, the complete integration of all functioning/reporting areas encompassing for example: reports, surveys, performance metrics, etc. (as mentioned in the SMS), will be an ASRA Board priority having the objective to be implemented, tested and refined progressively over the 2021-2022 calendar year period.

End.

Appendix

Appendix 1 – ASRA Event: Visitor Briefing Sheet & Safety Plan Content

Appendix 2 - ASRA Emergency Response Plan

Appendix 3 - ASRA Safety Report & Risk Form

Appendix 4 – ASRA Risk Register Explanatory Notes

Appendix 1
ASRA Event: Visitor Briefing Sheet & Safety Plan Content

ASRA Event: Visitor Briefing Sheet & Safety Plan Content

Every visitor to a ASRA sanctioned event must be made aware of the location of the event's safety plan and advised to read it, preferably prior to entering onto the airfield movement areas.

The content to be covered, comprising the detail of the safety plan, include (but is not limited to):

- How and where to locate and identify an ASRA Official.
- Location of hazard areas, including movement areas, fuel bunker and mobile hazards such as aircraft & vehicles.
- Requirement to maintain personal situational awareness of activity around them.
- Means of movement on (and the need to be escorted when on) the air side of the airfield, particularly when crossing runways.
- What restrictions on airfield movement, use of vehicles, attendance by staff apply?
- Requirement to remain clear of the runways except when moving to and from an aircraft prior to and following flying. Visitors are not to proceed air side unless participating in flying operations, moving to the Clubhouse/Hangers or assisting with airfield activity under the direct supervision of an ASRA Official.
- Requirement to stay away from propellers and rotors at all times and always assume a stationary propeller or rotor will move without warning.
- Smoking is prohibited inside buildings, on the airfield movement areas, within 30 meters of the fuel bunker and within 30 meters of any fuelling operation.
- Instructed to remain clear of aircraft taking off and landing.
- Dehydration, sunburn and sunstroke risks and the necessity to maintain fluid intake, wear appropriate clothing and seek shade when possible.
- Location of toilets and other facilities.
- At any time to ask questions if there is any uncertainty, particularly about where to be and what to do whilst on the airfield.

End.

Appendix 2
ASRA Emergency Response Plan

ASRA EMERGENCY RESPONSE PLAN

Revision 4.1
23rd August 2021

Australian Sport Rotorcraft Association

All correspondence should be directed to: safetymanager@asra.org.au

Revision History

Version	Date	Changes
1.0	05/2021	Creation of Emergency Response Plan template.
2.0	06/2021	Draft version – key section text creation.
3.0	06/07/2021	Draft version – supporting section additions and edits (based on initial ASRA Board feedback).
3.1	12/07/2021	Draft version – updated with additional board feedback comments.
3.2/4.0	14/07/2021	Final draft version – updated with final Board feedback comments.
4.1	23/08/2021	Minor amendment: version includes updated safety manager email contact.

Approvals

Version	Date	Name & Position Approving
4.0	14/07/2021	Rick Elliott, ASRA President.
4.1	23/08/2021	Rick Elliott, ASRA President.

Copyright

Overview

This plan is provided for reference to Instructors and officials in response to accidents or incidents involving authorised Australian Sport Rotorcraft Association (ASRA) events.

Definitions

These definitions not only delineate the severity of occurrences but also invoke different levels of required response.

It is mandatory to report all accidents involving death or serious injury to the ATSB and local police. However, all accidents, serious incidents, incidents and occurrences involving gyroplane operations must be reported to ASRA.

'Accident' - An occurrence associated with the operation of a gyroplane, which takes place between the time any person boards the aircraft with the intention of flight until all such persons have disembarked, in which:
1.   Any person suffers a fatality (death) or serious injury.
2.   The aircraft incurs substantial damage or structural failure.
3.   The aircraft is missing or inaccessible.

'**Serious incident'** - An occurrence associated with the operation of a gyroplane that affects or could affect the safety of the operation of the aircraft or that involves circumstances indicating that an accident nearly occurred. Examples include near-collisions, serious undershoots, pilot incapacitation and like occurrences.

'**Incident'** - An occurrence, other than an accident or serious incident, associated with the operation of a gyroplane that affects or could affect the safety of operation of the aircraft. In practice this definition is broadly interpreted and the ASRA incident reporting system accepts any reports, requests, complaints and suggestions which relate to aviation safety.

Whilst the focus of this document is on accidents, serious incidents and occurrences involving gyroplane operations, it is also possible that untoward events, accidents and incidents may occur on the airfield with regard to ground operations, motor vehicles, machinery and plant, ground infrastructure or natural hazard. The same principles apply with regard to emergency response, with these requirements tailored to the demands of the situation.

Accident and Incident Notification

Accidents with serious injury or fatalities must, in the first instance, be notified to the ATSB by telephone toll-free call: 1800 011 034 and the local police. All incidents involving gyroplanes must also be reported to the ASRA SM or the ASRA Incident Registrar. The telephone contact details for the SM and Incident Registrar can be found on the ASRA website.

'Online' reporting: A secure Safety Occurrence Reporting webpage accessed via the ASRA website is to be used to notify ASRA about all aviation safety occurrences. This system automatically advises the ASRA IR.

'Offline' reporting: In those circumstances where access to the ASRA's Incident Reporting Web form is impracticable, members can use a hard copy paper form which can be emailed to them upon request to the SM or IR.

Written notifications are required to be submitted within 72 hours of an accident, serious incident or incident in accordance with section 19 of the Transport Safety Investigation Act 2003 and Regulation 2.6 of the Transport Safety Investigation Regulations 2003. The written notification should contain as much information about the accident, serious incident or incident as is within the knowledge of the person at the time of submitting the notification. Submission of information known by the reporter to be false or misleading is a serious offence under section 137.1 of the Criminal Code. Aiding, abetting, counselling, procuring or urging the submission of false or misleading information is also a serious offence.

Removal of aircraft wreckage: When an accident occurs, the aircraft is deemed to have come into the custody of the attending police and it must not be moved except with the permission of the police, Executive Director of Transport Safety Investigation or authorised representative. Where the ATSB has informed ASRA that it is not investigating, police authority is required to remove the wreckage.

Immediate Priorities and Responses

1.   SAFETY OF LIFE

- Ascertain if it is safe to approach the crash/accident site.
- Provide immediate first aid.
- Call Emergency Services (000) if required or if in any doubt – Police, Fire, Ambulance.
- If fatality, inform ATSB - ATSB 24-hour hotline – 1800 011 034.
- Provide immediate firefighting response.
- If required to prevent further injury, remove patients to a safe location clear of immediate hazards.
- Ensure members of public and ASRA members are not exposed to further hazards.

2.   ASSIST EMERGENCY SERVICES

- Expedite Emergency Service access to the accident/incident site and any deceased or injured people.
- Escort emergency services if required ensuring they do not enter active runways.
- Assist in preserving the accident scene.
- Observe Police instructions.

3.   ENSURE SAFE TERMINATION OF FLYING OPERATIONS

- Recall airborne aircraft.
- Provide advice on landing requirements, blocked runway areas.
- Manage radio communications and safe ground operations.
- Terminate ground operations without interference to emergency response.

Additional related notes:

- These immediate priorities and responses must take precedence over the lower priority responses described below.
- When an accident or serious incident occurs, people will be stressed and will tend to react instinctively, sometimes focusing on lower priority issues.
- Restoring a sense of calm and discipline is very important.
- Clear delegation of tasks to individuals is vital.
- People will respond positively to calm and assured leadership.
- The designated ASRA official, if present, is responsible for managing the response to an accident or serious incident, as he/she is responsible for operational safety and operations supervision.

Having ensured that the immediate priorities and responses are being, or have been undertaken, the following high priority actions should be addressed…

High Priorities and Responses

Records:

- Prepare and collect accounts of the accident or incident, plus relevant data and imagery as soon as possible.
- Prepare and collect independent written statements from witnesses and those attending the scene, having briefed them on the importance of recording their own observations and actions, with minimum discussion with others.
- Take and retain photographs.
- Take measurements and prepare diagrams.
- Retain meteorological forecast printouts and data.

Note: If Police Officers retain any records and documents, recommend delegating someone to accompany officers to the station to collect photocopies of those documents.

'Overdue', or unknown accident location

- If an aircraft is overdue or its location is unknown, call AUSSAR (contact details below).
- Collect accounts or statements of last known movements, radio transmissions.
- Ensure listening watch on distress frequency 121.5MHz.
- Ensure hangar phone and mobile numbers are working and monitored.
- Remember, safety of members of the public present on the field is paramount.

Ensure preservation of physical evidence:

- Assist Police.
- Aircraft or wreckage may have to remain at the scene or on runway, if no further safety hazard exists.
- Photograph all wreckage, witness marks and ground disturbances from all angles before any physical evidence is moved.
- Covering or protection of evidence may be required.

Note: Physical evidence may be collected by Police or other authorities. If this occurs, keep an inventory of what evidence is collected.

Managing people

- Members of the public who are witnesses should be carefully debriefed and contact information retained for follow-on contact.
- Delegate a person at the airfield gate to limit access to essential people only, politely decline access to spectators and press to assist duty crew and emergency services to manage the scene, reduce movement of physical evidence, limit exposure to hazards, and better manage stress or trauma of those affected.
- If there is a fatality, media and public should be advised it is a Coronial issue under investigation by the Police.

Note: If there is a fatality, the airfield will be closed and technically becomes a crime scene. Police will require strict access controls.

Manage media access or inquiries, limit public comment

- If media are present at the time, ensure they are escorted by an ASRA official at all times and refer them to the ASRA president for comment.

- Defer comment to ASRA officials, the designated Point of Contact – for an accident or serious operational incident, this will normally be the ASRA President if time permits, draft a very short summary of the key facts regarding the accident or incident.

- If there is a fatality, DO NOT release names of victims.

- If there is a fatality, media and public should be advised it is a Coronial issue under investigation by the Police.

- Manage ASRA members present on the field.

- Focus on the key facts, try to avoid or limit speculation.

- Affirm assistance will be provided to deal with any stress or trauma.

- Affirm that it is normal for strong emotions to be felt, that may require expression and comfort.

- Obtain statements in writing from ASRA members present as to what they did or did not see, what their actions were.

- Obtain a complete list of people present and contact information.

Additional related notes:

- These responses are important but must always be lower precedence than the Immediate Priorities and Responses, which may require continuing attention and oversight whilst these responses are being addressed.

- When an accident or serious incident occurs, people will be stressed and will tend to react instinctively, sometimes focusing on lower priority issues.

- After the initial essential responses, people will want to express their emotions and seek out explanations.

- Maintaining a focus on the key facts and most important actions, whilst instilling sense of calm and discipline is very important.

- Clear delegation of tasks to individuals is very important, noting that many activities here must occur in parallel.

- People will respond positively to calm and assured leadership.

- If there is a fatality, Police officers will have authority over many issues on the airfield, but as non-aviators will require expert advice and counsel on what actions are appropriate. The ASRA official in charge must therefore establish a direct clear relationship with the Police officer-in-charge on the scene. The airfield must be closed and access controlled.

- If in doubt, seek advice and support from the ASRA President or Operations Manager/SM, as appropriate.

- Safety investigations are not only to correct deficiencies in peoples actions, but also constructions standards.

Appendix 3
ASRA Safety Report & Risk Form

ASRA SAFETY REPORT	PART 1 – RISK FORM

Name of Member:
(Person raising risk)

Date & Time:
(Hazard/Risk identified)

Step 1. In your opinion, what are the hazards and/or risks that have been identified (describe)?

1.1. In your opinion, are there any specific circumstances that make the hazard and/or risk worse (describe)?

1.2. In your opinion, who/what is at risk? (list)

1.3. In your opinion (please tick one)

❑ **The hazard/risk is considered low risk** in terms of no danger to aircraft, people or property – and **the risk is under control** (e.g., can be monitored by routine procedures).

❑ The hazard/risk is **not controlled** - we need to do a Risk Assessment (go on to Steps 2, 3 & 4 below).

Step 2. Risk Assessment (Identifying person to list and provide initial assessment of the hazards and/or risks)

Identified Hazards / Risks	Risk Assessment		Initial Risk Rating *(multiple of risk impact by likelihood, score 1-20)*	In your opinion, are specific 'Controls' Required?	
	Consequence *(Refer Risk Impact Scale 1-4)*	**Likelihood** *(Refer Risk Likelihood Scale 1-5)*			
				Yes	No
				Yes	No
				Yes	No

Step 3. Implementation Plan (how do think we fix this problem and who is responsible?)

Control Option	Resources	Person(s) Responsible	Proposed Action Date

Step 4. Consultation (e.g., with relevant ASRA representatives)

Have relevant ASRA staff been consulted in relation to risk? **YES / NO** (If yes, indicate who was consulted)

Name(s): Date:

Is this an 'Immediately Reportable Matter' (IRM), or a 'Routine Reportable Matter' (RRM)? YES / NO
(If yes, then submit to ASRA SM asap)

Member Name: Signature: Date:

ASRA SAFETY REPORT	PART 2 – ASRA ACKNOWLDGEMENT

To be completed by the Safety Manager (or delegate).

Part 1 (Risk Form) has been reviewed, assessed and should be progressed? **YES / NO**
(If no, give reasons for rejection of Part 1 report below, then reference, date and sign accordingly. Also advise member who raised also of your decision)

Report Reference:		Date:	
Name of Safety Manager (or delegate):		Signature:	

ASRA SAFETY REPORT	PART 3 – ASRA ASSESSMENT

To be completed by the Safety Manager (or delegate).

What 'controls' are in place to manage the hazard/risk?

What action (or actions) are required to eliminate, mitigate and/or control the hazard/risk to an acceptable level?

| SM has carried out risk assessment and updated the Risk Register?	**YES / NO** *(If No, state reasons)*	
Resources required (If any?)		
Responsibility for action (Who?)	Name(s):	
Should information from this report be submitted to any other parties? **YES / NO** (If YES, to whom?)	Name(s):	
Assessment agreed and accepted:	AM (name & signature):	ASRA Board Notified: (date):
Appropriate feedback provided to safety report/risk form proposer/member:	SM signature:	Date (when provided):
Any follow-up action required? **YES / NO** (If YES, then complete details e.g., an 'IRM' or 'RRM' needs to also be actioned)	Who (& what action):	By When:
ASRA Risk Register updated:	SM signature:	Date:

Risk Likelihood Scale

VERY HIGH	>90%	5	E.g., Risk has often occurred
HIGH	70-90%	4	E.g., Risk has occasionally occurred
MEDIUM	30-70%	3	E.g., Similar risks have been known to occasionally occur
LOW	10-30%	2	E.g., Risk has rarely occurred
VERY LOW	<10%	1	E.g., Risk has not occurred before

Risk Impact Scale

SEVERE	4	E.g., Needs immediate corrective action	In assessing the impact of a risk consider:
HIGH	3	E.g., Needs corrective action within 3 months	- the importance of the activity, - the amount of control you have over the risk, and - potential losses (financial, reputational, membership etc) if risk eventuates.
MODERATE	2	E.g., Needs corrective action within 6 months	
LOW	1	E.g., Does not currently require corrective action	

Risk Controls

Actions to control risks should be provided in accordance with the 'hierarchy of controls' summarised in the below schematic:
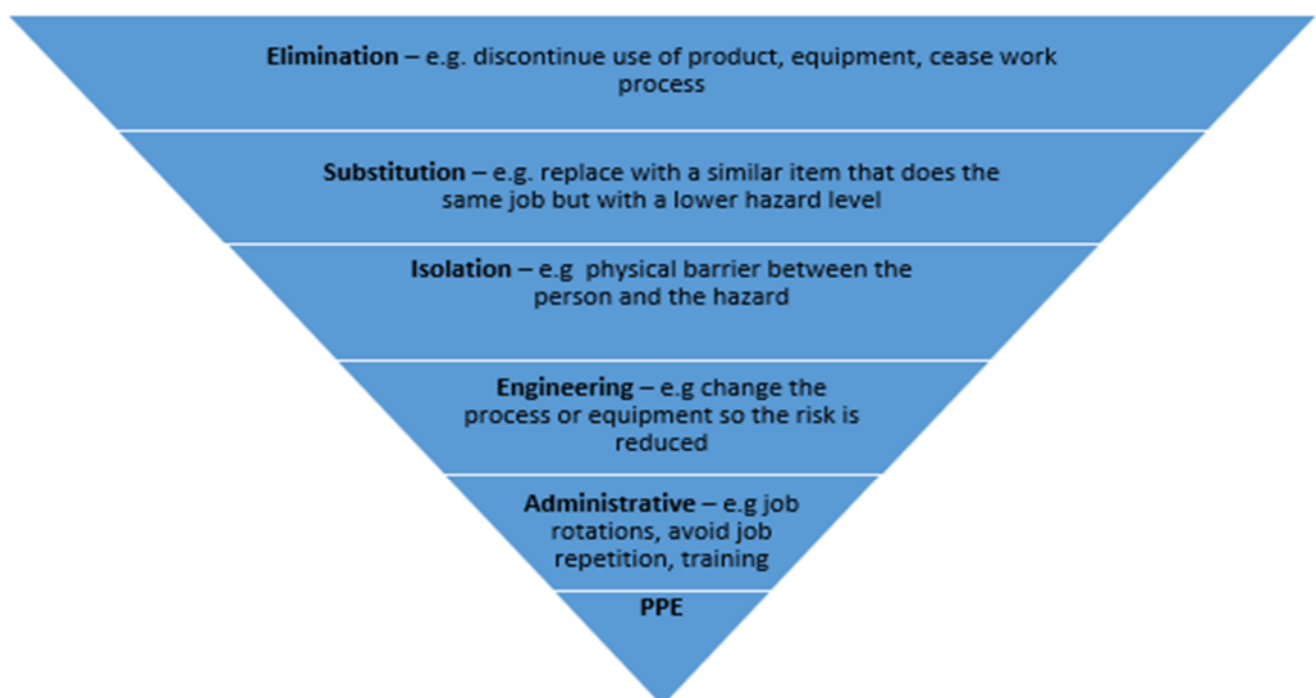
End.

Appendix 4
ASRA Risk Register Explanatory Notes

Explanatory Notes Regarding Risk Register:

Column	Options	Notes
Risk Category	Financial Organisational Compliance/ Legal Operational Safety Equipment Security Reputation Project Technology	Categories selected as required…
Risk	What could or could not occur?	Summarises the immediate outcomes if this risk eventuates…
Impacts	What it could lead to?	Summarises the potential longer-term consequences if this risk eventuates…
Causes	What would cause it to occur/not occur?	Summarises the potential circumstances that may cause this risk to occur…
Impact rating	Scale of 1 -4	Refer corresponding Risk Impact table…
Likelihood rating	Scale of 1 -5	Refer corresponding Risk Likelihood table…
Risk Assessment - Calculated Risk level	Risk Level is *automatically* calculated by multiplying the Risk Impact rating and the Risk Likelihood rating. A colour code is then automatically applied based on the rules tabulated below	Refer Colour Code table…
Risk Owner	*Label:* Committee Safety Manager Operations Manager Technical Manager Document's manager Secretary Treasurer Registrar Instructor Technical Advisor Contractor	The job label of the person (or group) that will suffer the consequences if this risk manifests…
Risk Status	*Label:* Identified Assessed Mitigation plan under development Mitigation plan underway Closed	
Mitigation Plan	Summary of steps to be taken or a link to the mitigation plan	Summarises what steps are needed to mitigate this risk…

Explanatory Notes Regarding Risk Register:

Mitigation Plan Owner	Label: Committee Delegate Safety Manager Operations Manager Technical Manager Document's manager Secretary Treasurer Registrar Instructor Technical Advisor Contractor	The person (or group) that must take responsibility for mitigating this risk…
Mitigation Plan Progress	Label: Not commenced Under development Awaiting approval On schedule Delayed Completed	List of actions to be undertaken to manage the risk…
Last Mitigation Plan Review Date	Date	Date that review was undertaken to audit progress in managing risk…
Next Mitigation Plan Milestone	Statement	Action being undertaken, date to complete this action and any current issues…
Next Mitigation Plan Review Date	Date	Date that next review will be undertaken to audit progress in managing risk…
Date Completed with Comments	Date and statement	Date that the management plan was completed with comments on any learnings and follow-up actions to ensure that the management plan was successful and that a similar risk is unlikely to occur again….

Risk Assessment Related - Scales, Score & Colour Coding

Risk Impact Scale

SEVERE	4	E.g., Needs immediate corrective action	In assessing the impact of a risk consider: the importance of the activity the amount of control you have over the risk potential losses (financial, reputational, membership etc) if risk eventuates
HIGH	3	E.g., Needs corrective action within 3 months	
MODERATE	2	E.g., Needs corrective action within 6 months	
LOW	1	E.g., Does not currently require corrective action	

Risk Likelihood Scale

VERY HIGH	>90%	5	E.g., Risk has often occurred
HIGH	70-90%	4	E.g., Risk has occasionally occurred
MEDIUM	30-70%	3	E.g., Similar risks have been known to occasionally occur
LOW	10-30%	2	E.g., Risk has rarely occurred
VERY LOW	<10%	1	E.g., Risk has not occurred before

Risk Score & Colour Codes

20	EXTREME	E.g., Immediately cease activity, assess and mitigate with controls implemented to significantly reduce risk. Detailed treatment plan required urgently; SM/AM involvement ongoing.
10-19	HIGH	E.g., Risk is likely and needs SM/AM attention and treatment plan as appropriate with regular monitoring.
4-9	MEDIUM	E.g., Requiring attention and/or monitoring as appropriate e.g., instructor level if applicable to specific training location and/or student pilot.
2-3	LOW	E.g., Manage through clear and concise communication and/or training, however also consider removing risk from ASRA Risk Register.
1	VERY LOW	E.g., This type of risk has not happened before and will not require further assessment – remove risk from ASRA Risk Register.

Note: Score colours as per 'Calculated Risk Level' column contained within the ASRA Risk Register.

Other Risk Assessment Related Notes:

- ISO 31000:2018 provides principles and generic guidelines on risk management.
- This Standard defines risk as: "...effect of uncertainty on objectives".
- This uncertainty may yield both positive and negative (threats) impacts however our Risk Matrix focusses on threats to our BEC business objectives.
- The Risk Matrix follows the conventional steps of:
  - Identifying and categorising risks
  - Assessing the likelihood and potential impact of each risk
  - Assigning a strategy to manage or mitigate each risk
  - Monitor the status and effectiveness of the management strategy
- Strategies to manage risks include:
  - Avoiding the risk,
  - Reducing the likelihood or severity of the risk,
  - Sharing or transferring all or part of the risk to another party (e.g. insurance),
  - Retention by accepting the risk and planning and budgeting for its consequences if it ever manifests.

End.