New Zealand Search and Rescue

22 August 2013

MOSR5-13

NZSAR RISK MANAGEMENT POLICY

1. NZSAR has adopted AS/NZS ISO 31000:2009 *Risk management – Principles and guidelines*, the international standard on risk management that has been adopted in New Zealand and Australia. This risk management policy is based on the guidance and terminology set out in AS/NZS ISO 31000.

2. Risk is defined in AS/NZS ISO 31000 as "the effect of uncertainty on objectives". This definition is supported by the following five notes.

> Note 1: An effect is a deviation from the expected – positive or negative.
>
> Note 2: Objectives can have different aspects such as financial, health and safety, and environmental goals and can apply at different levels such as strategic, organisation-wide, project, product, and process.
>
> Note 3: Risk is often characterised by reference to potential events, consequences, or a combination of these and how they can affect the achievement of objectives.
>
> Note 4: Risk is often expressed in terms of a combination of the consequences of an event or a change in circumstances, and the associated likelihood of occurrence.
>
> Note 5: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood.

Policy

3. It is the risk management policy of NZSAR to:

- provide strategic risk governance to all search and rescue agencies in New Zealand
- monitor the New Zealand and global search and rescue context to help identify and understand changes affecting or likely to affect New Zealand search and rescue activities
- identify, analyse and evaluate strategic risks to or arising from New Zealand search and rescue agencies
- recommend any treatments considered necessary for the better management of strategic risks assessed as unacceptable
- communicate and consult on strategic risks with key stakeholders

- Maintain a register of NZSAR risks including risk controls and treatments.
- Facilitate consistent and effective risk communications to stakeholders who might need operational search and rescue services.

Implementation of the policy

4. It is the responsibility of the NZSAR Secretariat to report to the NZSAR Council on strategic search and rescue risk-related matters. The Secretariat shall consult with members of the NZSAR Council and members of the NZSAR Consultative Committee and with other stakeholders on:

- strategic search and rescue risks
- current controls for those risks and the effectiveness of those controls
- (for risks considered unacceptable) treatment options and implementation of selected treatments.

COMMON ARRANGEMENTS FOR RISK MANAGEMENT

Annual review

5. The NZSAR Secretariat shall arrange for an annual review of the context of NZSAR to help identify any significant changes requiring revision of this policy. As directed by the NZSAR Council, the review may include members of the Council, Consultative Committee and third parties. Generally, the Secretariat shall collate and circulate to review participants information indicating changes in the context of NZSAR, including:

- the cultural, social, political, legal, regulatory, financial, technological, economic, natural and competitive environment (international, national, regional or local) context
- key drivers and trends having impact on the objectives of NZSAR
- relationships with, and perceptions and values of, key stakeholders
- Operational search and rescue capabilities, understood in terms of resources and knowledge (e.g., capital, time, people, processes, systems and technologies) that may impact on strategic search and rescue arrangements.

6. Review participants shall then review the risk register to determine if:

- assessed risks have changed in nature or level
- Risk controls and treatments remain adequate to manage those risks.

7. Arising from the annual review, the NZSAR Secretariat shall prepare an annual risk report to the NZSAR Council for approval or amendment.

Risk assessments

8. NZSAR strategic objectives are aligned with government policy. While many key risks will be strategic, some may arise from operational SAR activities but with the potential to impact on the strategic objectives.

Risk identification

9. Risks to NZSAR can be identified by workshops with members of the Consultative Committee or as a result of communications from the NZSAR Council or other stakeholders. The annual review of the risk management policy should include a facilitated workshop to identify new risks or changes in previously assessed risks.

10. Each risk should be named to identify risk sources, causes, events and consequences.

Risk analysis

11. Risks to NZSAR should be analysed to provide an understanding of the nature of each risk and then an estimate of the level of each risk. This may require some research into risk sources, causes of events, events and the consequences of events. Public (including media) perceptions should be included in any analysis. Any existing controls should be included in the analysis.

Risk analysis using Structured What-If-Then Analysis (SWIFT)

12. The nature of identified risks can be analysed using SWIFT in a workshop by a team of experienced SAR people use an appropriate list of prompt words or phrases developed before the workshop. A facilitator encourages team members to ask questions or provide information about the item under analysis by phrasing questions starting with:

- "What if …?"
- "What would happen if …?"
- "Could someone or something …?"
- "Has anyone or anything ever …?"

13. This helps ensure all risk events or changes in circumstances and their consequences and impacts have been identified. For each risk analysed, the relevant controls are also identified and evaluated for efficiency and effectiveness. If a risk is considered to be unacceptable, treatment options may be identified and recorded.

Risk evaluation

14. Using the results of the SWIFT risk analysis the NZSAR Council then determines if the level of risk is acceptable "as is".

Risk treatment

15. For risks determined to be unacceptable “as is”, treatment options should be developed. Generally, risk treatments will require either:

- avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk; or
- removing the source of the risk; or
- changing the nature and magnitude of likelihood; or
- changing the consequences; or
- sharing the risk with another party or parties; or
- Retaining the risk by choice.

16. The “retaining the risk by choice” option may arise due to current lack of resources or appropriate technology.

Routine management of NZSAR risks

17. The NZSAR Secretariat shall monitor risk controls to ensure they are operating as intended. If controls are not operating effectively, the Secretariat shall take appropriate action.

18. For risks that are determined to be unacceptable, the Secretariat shall implement or arrange for the implementation of agreed risk treatments and shall report on progress to the NZSAR Council and relevant stakeholders.

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Annex A - Policy Definitions

Annex B – Risk Consequence Assessment Categories

Annex C – Likelihood / Consequences Assessment Guide

Annex A

Policy Definitions

Unless otherwise stated, the following definitions are taken from the standard AS/NZS ISO 31000:2009. *Risk management – Principles and guidelines*.

Risk governance is “the identification, assessment, management and communication of risks in a broad context. It includes the totality of actors, rules, conventions, processes and mechanisms concerned with how relevant risk information is collected, analysed and communicated, and how and by whom management decisions are taken and implemented” (IRGC, 2009).

External context is the “external environment in which the organisation seeks to achieve its objectives.

Note: External context can include:

- The cultural, social, political, legal, regulatory, financial, technological, economic, natural and competitive environment, whether international, national, regional or local.
- Key drivers and trends having impact on the objectives of the organisation; and relationships with, and perceptions and values of external stakeholders.

Internal context is the “internal environment in which the organisation seeks to achieve its objectives

Note: Internal context can include:

- governance, organisational structure, roles and accountabilities;
- policies, objectives, and the strategies that are in place to achieve them;
- the capabilities, understood in terms of resources and knowledge (e.g. capital, time, people, processes, systems and technologies);
- information systems, information flows and decision-making processes (both formal and informal);
- relationships with, and perceptions and values of, internal stakeholders;
- the organisation's culture;
- standards, guidelines and models adopted by the organisation; and form and extent of contractual relationships.

Risk is “the effect of uncertainty on objectives.

Note 1: An effect is a deviation from the expected – positive or negative.

Note 2: Objectives can have different aspects such as financial, health and safety, and environmental goals and can apply at different levels such as strategic, organisation-wide, project, product, and process.

Note 3: Risk is often characterised by reference to potential events, consequences, or a combination of these and how they can affect the achievement of objectives.

Note 4: Risk is often expressed in terms of a combination of the consequences of an event or a change in circumstances, and the associated likelihood of occurrence.

Note 5: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood".

Event is an "occurrence or change of a particular set of circumstances.

Note 1 An event can be one or more occurrences, and can have several causes.

Note 2 an event can consist of something not happening.

Note 3 an event can sometimes be referred to as an 'incident' or 'accident'.

Note 4 an event without consequences can also be referred to as a 'near miss', 'incident', 'near hit' or 'close call'"

Risk management framework is a "set of components that provide the foundations and organisational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout the organisation".

Risk management process is the "systematic application of management policies, procedures and practices to the tasks of communicating, establishing the context, identifying, and analysing, evaluating, treating, monitoring and reviewing risk".

Risk assessment is "the overall process of risk identification, risk analysis and risk evaluation".

Risk identification is the "process of finding, recognising and describing risks".

Risk analysis is the "process to comprehend the nature of risk and to determine the level of risk.

Note 1: Risk analysis provides the basis for risk evaluation and decisions about risk treatment.

Note 2: Risk analysis includes risk estimation".

Risk evaluation is the "process of comparing the results of risk analysis against risk criteria to determine whether the level of risk is acceptable or tolerable.

Note: Risk evaluation assists in the decision about risk treatment".

Risk criteria are the "terms of reference by which the significance of risk is assessed.

Note 1 Risk criteria are based on organisational objectives, and external and internal context.

Note 2 Risk criteria can be derived from standards, laws, policies and other requirements".

Risk source is an "element which alone or in combination has the intrinsic potential to give rise to risk.

Note: A risk source can be tangible or intangible".

Control is a "measure that is modifying risk.

Note 1 Controls include any process, policy, device, practice, or other actions which modify risk.

Note 2 Controls may not always exert the intended or assumed modifying effect"

Risk treatment is the "process of developing, selecting and implementing controls

Note 1 Risk treatment can involve:

- avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk;
- seeking an opportunity by deciding to start or continue with an activity likely to create or enhance the risk;
- removing the source of the risk;
- changing the nature and magnitude of likelihood;
- changing the consequences;
- sharing the risk with another party or parties; and
- Retaining the risk by choice.

Note 2: Risk treatments that deal with negative consequences are sometimes referred to as risk mitigation, risk elimination, risk prevention, risk reduction, risk repression and risk correction.

Note 3: Risk treatment can create new risks or modify existing risks".

Stakeholder is a "person or organisation that can affect, be affected by, or perceive themselves to be affected by a decision or activity.

Note: A decision maker can be a stakeholder".

Annex B Risk Consequence Assessment Categories

The table below is a guide for determining the consequence level (impact of the risk event occurring). Depending on its nature, a risk event may include several columns.

Level of Impact	Consequence Assessment Categories		
	Achievement of goals	Financial Impact	Political / Reputation Impact
Insignificant (1)	It is likely that there will be no impact on NZSAR goals being achieved.	Insignificant financial impact on NZSAR.	Occurrence of the risk event is not visible internally or externally. No explanation required.
Minor (2)	It is likely the goals would still be achievable but with some minor inconvenience	Minor financial impact on NZSAR.	Occurrence of the risk event would not be visible externally. Some explanation/accountability would be required internally.
Moderate (3)	The affected goal(s) would still be achieved but only with significant difficulty.	Moderate financial impact on NZSAR.	It is likely the risk event would be visible to key internal and external stakeholders. Some damage (actual or perceived) to NZSAR's reputation.
Major (4)	The occurrence of the risk event would result in one or more of the goals definitely not being achieved.	Major financial impact on NZSAR.	The risk event would be highly visible to key internal and external stakeholders and the public. Major damage (actual or perceived) to NZSAR's reputation.
Severe (5)	The occurrence of the risk event would result in the majority of NZSAR's strategic goals definitely not being achieved.	Severe financial impact on NZSAR.	The risk event is highly visible nationally and internationally causing irreversible damage to NZSAR's reputation.

Annex C – Likelihood / Consequences Assessment Guide

			Consequences				
			1	**2**	**3**	**4**	**5**
			Insignificant	**Minor**	**Moderate**	**Major**	**Severe**
Likelihood	**5**	**Certain** Almost certain to occur in most circumstances (75%+ probability)	Medium (5)	Medium (10)	High (15)	High (20)	High (25)
	4	**Likely** Likely to occur frequently (50% - 80% probability)	Low (4)	Medium (8)	Medium (12)	High (16)	High (20)
	3	**Possible** Might Occur at some time (25% - 50% probability)	Low (3)	Low (6)	Medium (9)	Medium (12)	High (15)
	2	**Unlikely** Could Occur at some time (less than 25% probability)	Low (2)	Low (4)	Low (6)	Medium (8)	Medium (10)
	1	**Rare** May occur but only in exceptional circumstances	Low (1)	Low (2)	Low (3)	Low (4)	Medium (5)