

12 February 2016

NZSAR RISK MATRIX

Risk #	Risk Description	Reasons or Causes	Consequences	Likelihood	Impact	Risk Level (reviewed)	Risk Treatment(s)	Post Treatment	Comments/Examples
2016/01	SAR Information Search and rescue information is inadequate or unreliable for future planning.	SAR data collection is fragmented, lacks cohesion and is typically collected to meet the requirements of individual organisations. Properly analysed longitudinal information is difficult for decision makers to access. Data gaps and omissions render sound analysis difficult. In some instances, excessive detail is being collected. Insufficient focus is placed on the analysis of existing data. Drivers of SAR demand such as activity participation is not well understood.	Without reliable information, NZSAR will be unable to identify strategic changes and opportunities for the SAR community. Effective decision making is compromised by the lack of reliable, analysed data. Information can also be hard to access as it can reside within silos.	Certain	Moderate	(May 14)	Risk treatment 2016/01/A: SAR Data Standard In consultation with operational SAR agencies, develop and document an agreed SAR data standard for collection, collation and analysis.		Changing patterns in, for example, society, demographics, tourism, recreational activities, participation rates and technology is likely to impact on SAR needs and resources.
						(May 14)	Risk treatment 2016/01/B: Data exchange and storage Establish and maintain a single repository for all SAR data.		
						(May 14)	Risk treatment 2016/01/C: Data analysis Analyse SAR data to identify trends and patterns in SAR events. Such analyses should be used in conjunction with other data to show broader trends and patterns. The resultant products will be made available to decision makers and stakeholders.		
						(May 14)	Risk treatment 2016/01/D: SAR Operational Analysis Conduct an operational analysis of SAR need mapped to SAR resources. Assist SAR providing agencies to reshape their organisations to match proven SAR need.		
2016/02	SAR funding The sector experiences funding sufficiency and volatility risks.	Sufficiency. Funding for the wider SAR sector has a variety of sources. Funders may choose to lessen or withdraw their funding support.	Inadequate funding for part or some of the sector may limit investment in training or equipment and lead to inadequate operational responses.	Possible	Moderate	(March 15)	Risk treatment 2016/02/A: SAR Funding Maintain an overall SAR funding picture. Work with other key SAR funders to sustain adequate supply. Maintain adequate PLA funding to meet Council goals.		
		Volatility. The funding levels for SAR agencies can be volatile due to profit variances with key gaming or lotteries trusts & boards. Grants policies also frequently change which can affect eligibility. Public appeals & donations are susceptible to change.	Volatile funding inhibits long term planning and investment. It also degrades sector effectiveness and efficiency.	Possible	Moderate	(March 15)	Risk treatment 2016/02/B: Funded SAR SLAs Continue to support key SAR providing agencies with appropriately funded three year Service Level Agreements.		

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2016/03	Cohesive SAR Training The SAR sectors training is largely conducted within organisational silos.	SAR training has evolved, developed and is often delivered within organisational silos. The perspectives of individual organisations have frequently taken precedence over the needs and goals of the wider sector. Continuation or refresher training is often absent allowing skills to degrade over time	Training variances can impact on sector collaboration and degrade inter agency and internal cohesion. Training divergence can lead to incompatible incident management systems, different understanding of language and incompatible expectations, SAR processes and priorities. These factors can contribute to deficient SAR services, inefficiencies and potentially avoidable loss of life.	High	Moderate	(Feb 16)	Risk treatment 2016/03/A: Suitable individual SAR skill acquisition training is available funded and sound. SAR (ACE) funded skill acquisition training is available for SAR people so that they may achieve the relevant SAR competencies at no cost to themselves.		
						(Feb 16)	Risk treatment 2016/03/B: Collaborative SAR training and exercising Continue cooperative and collaborative training, exercising and relationship building. See treatment option 2014/04/A for a treatment option based on cross-agency training.		NZSAR supports the conduct of Police District SAREXs and the Raoura Mass Rescue Exercise series
						(Feb 16)	Risk Treatment 2016/03/C: Continuation/Refresher Training Encourage all SAR agencies to plan and undertake continuation or refresher training in order to retain skills and maintain engagement with SAR. Consider supporting sector based incident management team exercises to sustain collective management skills. Work with Police to develop a SAR coordinator revalidation system.		Continuation or refresher training is the responsibility of the SAR sector as and "industry".
2016/04	Volunteerism Risks exist around volunteer recruitment, retention and training.	Changing demographics and attitudes, increasing work demands impact on volunteer recruitment, availability and longevity with the SAR sector.	The SAR sector is highly reliant on volunteers for the safe delivery of effective SAR services. <ul style="list-style-type: none"> Insufficient numbers of volunteers in the right locations is likely to impact on the safe delivery of effective SAR services. Volunteer turbulence increases the training burden and inhibits the formation of SAR leaders. Excessive training demands, poor or infrequent exercises and/or onerous administrative requirements deter people from volunteering and discourage existing volunteers from remaining. Infrequent utilisation for SAROPs can be dispiriting and discourage long term engagement. 	Unlikely	Moderate	(Nov 15)	Risk treatment 2016/04/A: Maintain good information on SAR volunteers <ul style="list-style-type: none"> Maintain good information about SAR volunteers and their expectations. Assist SAR organisations with information around recruitment and retention of volunteers to help ensure a sufficient number in areas and types of need. Ensure administrative requirements are not excessive. 		
		Growing public and legal expectations of SAR performance and competence impacts upon the training and commitment levels of SAR volunteers.				(Nov 15)	Risk treatment 2016/05/B: Support SAR training alignment to the NZ Qualifications Framework (NZQF) When and where agreed by SAR agencies, NZSAR will actively Support and assist aligning SAR training to the NZQF.		
		Trained SAR Volunteers can be difficult to retain and motivate in areas where little SAR activity occurs.				(Nov 15)	Risk treatment 2016/04/C: Quality SAR Exercises The conduct of good quality, appropriately focussed and well evaluated SAR exercises is important as they enhance readiness, reinforce training and build cohesiveness and morale within the SAR sector.		NZSAR supports the conduct of Police District SAREXs

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2016/05	Recreational Knowledge Inadequate public understanding of personal risks taken during recreational activities.	A significant number of the public demonstrate a lack of understanding or underestimation of the risks involved with the recreational activity they are undertaking. Due to: <ul style="list-style-type: none"> Decrease in public knowledge about recreational safety. Increase in the range of recreational activities. Little investment in proactive safety message promotion – particularly land, snow and avalanche safety information. Lack of understanding by inbound tourists about New Zealand’s conditions and weather. Poor coordination and cohesion between the plethora of competing agencies which provide safety advice. 	<ul style="list-style-type: none"> Individuals fail to take adequate precautions and/or responsibility for their own safety. Unacceptable levels of harm to New Zealand residents and foreign tourists. Harm to the reputation of New Zealand as a tourist destination. Unrealistic public expectations of the SAR sector. 	Likely	Moderate	(May 14)	Risk treatment 2016/05/A: Ensure the public has access to good quality, consistent safety advice. Maintain the NZSAR Adventure Smart website (http://adventuresmart.org.nz/) and support the promulgation of consistent sector messaging.	Green	Example - Safety Code material. Example: Safety Partnership.
						(May 14)	Treatment option 2016/05/B: Recreational safety - provision of consistent information to the media. Support the relevant agencies to provide timely information to the media on personal responsibilities and better preparation when undertaking outdoor recreational activities.	Yellow	
						(May 14)	Treatment option 2016/05/C: Support domestic safety organisations. Support the SAR prevention efforts of domestic safety information providing agencies. Encourage and harmonise collaborative action.	Green	
						(Nov 15)	Treatment option 2016/05/D: Develop an NZ Inc Recreational Safety Strategy.	Yellow	
2016/06	Mass Rescue Event Catastrophic mass rescue event overwhelms SAR capabilities.	New Zealand's SAR sector has very limited capacity to respond to large scale SAR events. New Zealand has a very large SAR region with little or no SAR assets in much of the region. Significant numbers of vessels and aircraft with large amounts of passengers transit the NZSRR.	<ul style="list-style-type: none"> Significant numbers of people injured or killed that could have been rescued. Severe reputational damage to SAR agencies. Severe reputational harm to New Zealand as a tourist destination. 	Rare	Severe	(May 15)	Treatment option 2016/06/A: Develop mass rescue policy and plans. In conjunction with partner agencies, develop appropriate mass rescue policies and plans.	Yellow	This risk is seen as high consequence but low likelihood. It is mainly controlled by the professionalism of ships officers and pilots together with advanced technology to help navigate such ships.
						(May 15)	Treatment option 2016/06/B: Conduct regular mass rescue exercises. In conjunction with partner agencies, exercise the mass rescue plans in all Police districts to validate and refine them.	Yellow	
2016/07	COSPAS SARSAT failures LEOSAR satellite degrade or LEOLUT failure before the MEOSAR system is ready.	<ul style="list-style-type: none"> Failure of the NZ LEOLUT prior to the MEOSAR system being accepted into service Failure of LEO SAR satellites before the MEOSAR system is accepted into service. 	<ul style="list-style-type: none"> NZ unable to receive distress beacon activations. NZ unable to assist Australian SRR related beacon activations. Entire COSPAS SARSAT system rendered partially or totally ineffective. 	Rare	Major	(Nov 15)	Treatment option 2016/07/A: Engage with LEO LUT providers to fix or replace the NZ LEO LUT. Should this be necessary – it would only likely be necessary for a short period and could be costly.	Green	Existing low-altitude and high-altitude satellites are being replaced by medium-altitude satellites. In 2016-2017 the existing ground station will no longer be reliable and the aviation and maritime SAR capabilities will reduce.
							Treatment option 2016/07/B: Advance the in-service date for the MEOSAR system. The MEOSAR system is currently undergoing trials and it may be possible to bring it into service earlier than planned.		

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2016/08	Health and Safety Incident or audit exposes SAR sector health and safety deficiencies.	NZ's H&S regulatory environment is changing. The SAR sector needs to adapt to the new requirements and implement the required changes for the SAR context.	SAR organisations, team and individuals fail to implement appropriate / necessary H&S processes and procedures and in the event of an audit or plans to mitigate severely negative H&S incident are: <ul style="list-style-type: none"> Exposed to risk of prosecution. Suffer reputational damage. Experience an outflow of personnel due to perceived risk. 	Unlikely	Major	(May 15)	Treatment Option 2016/08/A: Implement sound H&S processes and procedures NZSAR Council H&S processes and procedures for the SAR sector have been approved and are being implemented. The five SLA documents include H&S provisions from Jul 2014. SAR sector H&S monitoring and reporting occurs at the SAR strategic H&S Committee and a variety of other interagency SAR forums. H&S experiences and lessons are shared between SAR partner agencies. A sector based H&S symposium is planned for August 2016.		
		SAR Training, SAROPs and SAREXs often expose SAR people to an array of hazardous environments and situations. The sector is likely to experience a significant H&S related incident at some point.	<ul style="list-style-type: none"> Experience an outflow of personnel due to excessive H&S process requirements. Likely to expect significant external pressure / investigation / regulation / over watch following the trigger event. 	Rare	Severe	(May 15)	Treatment Option 2016/08/B: H&S incident contingency planning SAR providing agencies and coordinating authorities are encouraged to develop contingency plans for use in the event of a SAR related severe H&S incident. Plans may include media, internal personnel and SAR partner engagement as well as grief & trauma counselling etc.		
2016/09	SAR Expectations Stakeholders and public develop unrealistic expectations of SAR capacity and capabilities	A lack of knowledge about SAR sector capabilities and limitations may lead to unwarranted expectations.	In the event of a mass rescue, mass search or a SAR incident at the extremities of the NZSRR, the media, public and senior stakeholders may unduly criticise SAR agencies and/or demand actions by SAR agencies that are beyond our capabilities.	Rare	Major	(Jul 15)	Treatment Option 2016/09/A: Advise senior stakeholders of SAR Sector capabilities and limitations Prepare a briefing note for ODESC and Ministers regarding SAR capabilities and limitations.		
		Regular reporting of successful SAR operations may lead to a false sense of SAR capabilities by the media and significant stakeholders.	Inappropriate SAR sector investment due to a misunderstanding of SAR expectations			(Jul 15)	Treatment Option 2016/09/B: Advise media stakeholders of SAR Sector capabilities and limitations Distribute the NZSAR annual report to media outlets. RCCNZ and NZ Police hold an annual SAR media briefing and specifically note SAR sector capabilities and limitations.		
			Members of the public may suffer undue hardship or cause unnecessary cost on the SAR system due to misunderstanding its capabilities and limitations.	Likely	Moderate	(Nov 15)	Treatment Option 2016/09/C: Undertake a benchmarking survey of SAR expectations Engage with the public on occasions to ascertain what their expectations of SAR are and measure trends in expectations.		
2016/10	SAR Technology The SAR community may not know of or be able to acquire technologies that have the capacity to significantly increase SAR effectiveness.	Technology development and change occurs at a very fast pace. Technologies which might aid or transform SAR are difficult to identify and hard to fund.	The sector may be challenged operationally and criticised by not utilising the most appropriate technology for an operation.	Likely	Moderate	(Nov 15)	Treatment Option 2016/10/A: Organise occasional SAR technology workshops to identify technological trends and opportunities relevant to SAR.		
		Different SAR agencies might select different, non compatible SAR technologies.	Non compatible technologies may hinder our capacity to collaborate and cooperate.				Treatment Option 2016/10/B: Seek funding to permit the establishment of a contestable SAR initiatives fund.		