NEW ZEALAND SEARCH AND RESCUE COUNCIL

Integrated SAR Incident Management Training Pathways

Prepared by
T.J. Crozier
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Xperts

Acknowledgments

Without the sterling efforts of some already busy people, the process would have been vastly more difficult. So thanks go to: Pete Corbett, Paul Craven, Joe Green, Bruce Johnston, Brent Harvey, Keith Morfett, Phil Pollero, Dave Ritchie, and the indefatigable Phil Burgess.

TABLE OF CONTENTS

SUMMARY 1

REPORT DETAILS 11

Project development 12

The 2009 Curriculum 14

The current Framework related training 18

Summary of coverage by topic 21

Collective training events that contribute to the Framework 22

The future training pathways 24

Recommendations for the next steps 27

Appendix 1 34

Appendix 2 42

Summary

TRAINING PATHWAYS

The intent of the core curriculum was, in the words of the author of the 2009 Review, to *"enhance training arrangements that already exist and to address training gaps, so that a college of progressive thinking about SAR, backed up by a core curriculum of courses, can provide the sector's leaders with a coherent platform of expertise and good practice for use in their organisations".*

This report is intended to provide an updated snapshot of sector training related to the 2009 Core Curriculum as at October/November 2013 and to map a potential development pathway for 2014, specifically to:

1. Expand the basic topic outlines from 2009 by writing explanatory learning outcomes and competencies for each subject so that greater clarity existed about the purpose of training each topic.
2. Revisit the topics with sector stakeholders, and identify and map current their training that meets the outcomes.
3. Summarise, compare and analyse the feedback from each organisation to identify gaps.
4. Develop recommendations regarding filling the training gaps, improving overall Framework coherency and creating general training efficiencies going forward.

Two basic assumptions were held throughout the project:

1. That the organisations in the SAR community are already operating competent training systems and programmes that meet their operational needs.
2. The core business of each organisation remained their business.
3. It is noted that RCCNZ, LAND SAR and Coastguard are all in the process of revising or updating curriculum in significant ways. The outcome of that work may impact on the Framework—it would help sector alignment if the specification of the Framework were kept in mind as alterations are made.

Scope Exclusions

Outside the scope of analysis were the applied/hands-on courses that organisations deliver for their own people, and SAREX.

Is the Core Curriculum Framework currently being addressed?

Based on information received from each organisation, the majority of the 2009 Core Curriculum would appear to be trained. The embedment and frequency of training is the greatest where a topic relates directly to the organisations principal responsibilities.

The emphasis on the organisations mandate and authority means that some topics may not be trained, as the organisation has no direct requirement for that aspect—it is outside their day-to-day operational scope. A strategy is required to fill those gaps.

In general organisations have applied their own heirachy of learning, and that is not an issue. The key factor is that a cohesive body of underpinning knowledge is gained before higher level, collaborative training is participated in.

Training gaps by organisation

Below are the apparent gaps in the Framework training pathway sorted by organisation. It is these areas that require supplemental training in some way.

Note: Feedback on the topic coverage and scope relied upon the responder's interpretation of their own organisation's training resources in relation to the definitions of the curriculum topic and learning outcomes. Given this approach, in all likelihood, there may be some minor coverage irregularities or variance depending upon the person interpreting the definitions.

POLICE

- Government Policy and SAR Governance
- International SAR relationships
- NZ Research and Development
- Preventative SAR
- Training and Assessment

RCCNZ

Nil. RCCNZ staff have the sole function of SAR incident management.

LAND SAR

- Government Policy and SAR Governance
- International Relationships
- NZ Research and Development
- Preventative SAR
- Risk Management
- Rescue Planning
- Media Management
- Major resource utilisation
- Incident Review and Evaluation
- Training and Assessment

COASTGUARD

- NZ Research and Development
- International Relationships
- Media Management
- Incident Review and Evaluation
- Training and Assessment

SURF LIFESAVING

- Government Policy and SAR Governance
- International Relationships
- NZ Research and Development
- Preventative SAR
- Risk Management
- Media Management
- Major resource utilisation
- Incident Review and Evaluation
- Management and Leadership (Management)

Related coverage comment from within organisations

LANDSAR. Pete Corbett

Incident Review and Evaluation: This is high-level training for only a few LANDSAR folk and more pertinent for the Police and RCC.

Training and Assessment: Currently rely on training providers or contractors to do this for us—but have introduced the Train-the-trainer training to deliver the modular training packages—it is intended that this training capability will then create a pathway for Group assessors to assess the competencies when they are developed—and yes agree these topics need to be split

No recovery aspect to Rescue Planning?: Arguably there is a need for a rescue or recovery management course given the changing nature of the SAROPS—less search and more recovery or rescue.

Investigation and Search Planning: The Formal Search Planning course is under development, but there needs to a greater focus on investigation, intelligence analysis and general information management.

RCCNZ. Paul Craven

Debrief and Analysis: Planning cycles get included in Incident Review and Evaluation.

Managing Medical Emergencies: Gets included in Medical and Welfare Factors.

Law, Ethics and Guidelines: Should be a prerequisite to the Structure and Governance modules.

International Search and Rescue Regions: Is added to International Relationships.

Some proposed modules are not knowledge required to manage an incident:

- NZ Research and Development
- Preventative SAR
- Training and Assessment

Investigation and Search Planning: This training topic needs to be split.

NZ Police. Joe Green

I have drafted the following into the SAR chapter of the Policing manual: Police SAR Squad: *"A group of Police employees in each district trained and competent to command, control and support a SAROP including being deployed into remote and difficult terrain and in marine and water based environments, and includes Police Maritime Units. Police SAR Squad members are trained in Disaster Victim Identification".*

Police staff working with helicopters are to be trained and refreshed at least annually.

Are there some topics that should be removed from the Framework?

Yes, **Training and Assessment.** That specialist function is carried out by others in large organisations, and is of limited relevance to people in smaller organisations that are unlikely to have the overarching authority to carry out the role.

Are there areas where training could be further enhanced?

Yes. Extra resources need to be produced to supplement these topics:

- **Government Policy and SAR Governance**
- **NZ SAR Structure and Organisations**
- **Law, Ethics and Guidelines**
- **International SAR relationships**
- **NZ Research and Development**
- **Preventative SAR**

What next steps could be taken to consolidate the progress made so far?

There is an apparent willingness and positivity about the Framework concept. Having gained initial momentum it is timely for the Secretariat to build on the progress thus made and put in place a sector wide perspective that defines how a person becomes a member of an incident management team from the various partnering organisations, proactively fill training gaps and maintain the Framework presence. The recommendations below provide a means of doing that in the immediate future.

1. **Consolidate** and formally recognise the various training pathways related to the Framework.

   Collectively regard the preferred SAR Incident Managers training hierarchy as

   Induction and applied skills training within organisations

   progressing to

   Introduction to the underpinning SAR management topics via organisational or shared training courses such as 'Manage the Initial Response (Marine or Land)' and the proposed 'Train the Trainer'

   then

   Training that involves cross-sector collaboration between participants from different organisations (theory: Leadership, Management, applied theory: SAREX's)

   followed by

   Participation in actual incident teams

2. **Remove** Training and Assessment from within the Framework. It is not relevant in its coverage and the proposed Train the Trainer course and existing organisational training can fill that gap in more flexible and appropriate ways.

3. **Develop cross-sector information** booklets for the non-mission critical topics that are not currently trained to the requirements of the Framework.

    - Government Policy and SAR Governance.
    - NZ SAR Structure and Organisations.
    - International SAR relationships.
    - NZ Research and Development.
    - Law, Ethics and Guidelines

4. **Discuss with Surf Lifesaving, LANDSAR and Coastguard** the best way to supply overview information related to areas in which they have no incident mandate or authority: Review and Evaluation and Investigation, Risk Management, Major Resource Utilisation.

5. **Set two stakeholder meeting dates per year** to monitor any changes to each organisations contributing Framework pathway so that the relevance to the curriculum is maintained.

6. For geographic flexibility, time efficiency and economic reasons, **discuss with Tai Poutini Polytechnic more online delivery** in the sector-wide training they offer—for example self-study and online testing for basic theory topics. People do not necessarily need to attend face-to-face training for that information to be satisfactorily learnt.

7. **Consider the feasibility** of having a cross-organisational SAR Incident Managers training record database. Having such a record would allow a sector wide understanding of the numbers at each stage and requiring training in subsequent courses, plus a summary of the personnel knowledgeable enough to resource incidents.

TRAINING PATHWAYS

8. **Promote the Leadership and Management courses** as SAR cross-sector premier events. As part of that recognition it would be appropriate to have some form of Secretariat recognition for those who successfully finish the Management course.

9. After the current Total Review of Qualifications exercise being undertaken by the New Zealand Qualifications Authority, **aim to be represented on EMQUAL's Board** for information flow and SAR influencing purposes in the changed qualification environment. At a minimum it is important to have a say in any changes that may occur to CIMS 2 and CIMS 4 given the importance of those to the SAR sector.

10. If cross-sector formal NZQA training certification is deemed important at some future point, **apply that certification to collaborative training events.** This would avoid the complexities of having an imposition on agency training that is focussed on meeting mandated authority outcomes.

Report Details

Project development

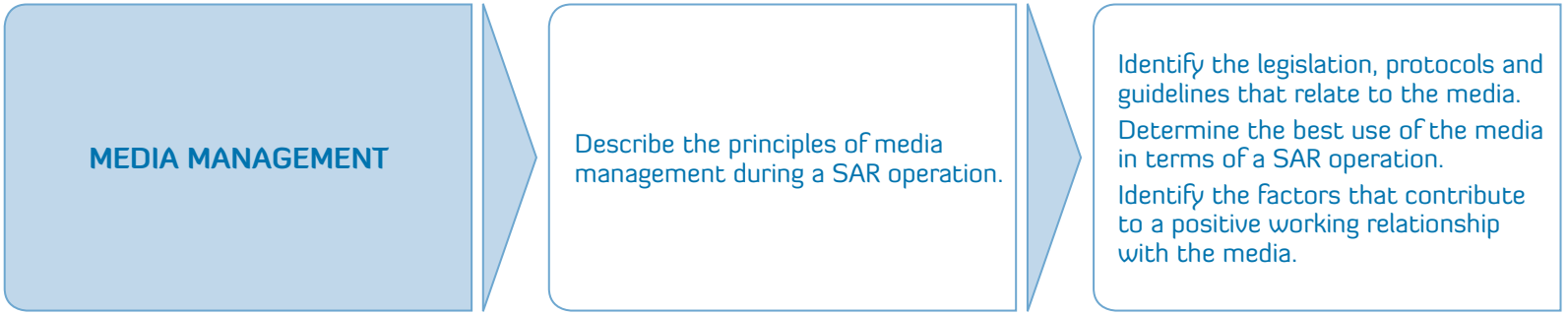
1. To align with outcomes based education and training practice, extra information was developed for each topic:

    a. A short overall purpose statement: *"The participants who successfully complete this curriculum will have the knowledge to begin to participate effectively and efficiently as a manager in a SAR incident team"*.

    b. An overarching learning outcome for each topic that defines what a person who had successfully completed training in that would have the knowledge and skills to do.

    c. Indicators of competency.

    For example:



    Having those extra definitions in place for each topic allows for:

    - Increased understanding of the intent for those representatives in each organisation who were considering the match of the Framework to their own organisational training.
    - A learning outcomes based point of reference when considering the fit and relevance of future requests for extra training related to the Framework.

- Parameters that can be used for the development of assessments.
- The underpinning information for the future development of a fully specified competency framework, if desired.

** Refer to Appendix (1) for the full list of topics, sub topics, outcomes and competency indicators.*

2. Meetings were held with representatives of each organisation to introduce the expanded Framework document, and they were asked to consider
    - the accuracy of the draft Purpose Statement
    - the relevance of the topic outcomes and competency indicators to the Topics and Sub-Topics
    - what in their organisations current training contributed to the topics/sub topics , and to
    - report back on that.

    ** Summaries of the reports from each organisation are contained in Appendix (2).*
3. The scope of cross-sector training events was reviewed.
4. Queries arising were resolved, an organisation-by-organisation gap analysis carried out, the results were summarised and each contributor had a chance to feedback on the gaps initially identified.
5. Draft v1 report distributed for feedback.
6. Taking in of feedback and development of the current report.

The 2009 Curriculum

The stated intention in 2009 was that:

"Managers and trainers may use the core curriculum

- *as a reference when reviewing the content coverage of training;*
- *to show where there might be gaps, overlaps or repetition in courses;*
- *as the basis for discussion with external training providers;*
- *as the basis for discussion with partner agencies that may have particular expertise to offer;*
- *to help review roles and relationships; and*
- *by using the associated competencies, to better manage, resource and*
- *encourage organisational, unit and personal development and performance".* *Source: 2009 Review Report*

The original curriculum was made up of 17 topics:

Government Policy and SAR Governance
Technology
Investigation and Search Planning
Rescue Planning
NZ SAR Structure and Organisations
Management and Leadership
Law, Ethics and Guidelines
Media management
International relationships
Training and Assessment
NZ Research and Development
Medical and Welfare factors
Preventative SAR
Incident Review and Evaluation
Incident Management
Risk Management
Major Resource Utilisation

** To read the related Sub-topics refer to Appendix (1)*

Implicit in the 2009 scope was that the curriculum would provide the skills of initial management sufficiency—a person trained in the curriculum topics would then have a broad SAR management theory knowledge, plus some cross-organisational understanding of the functions of a SAR incident management team.

They could then further apply and hone that knowledge through practical exercises such as SAREX or scenarios within a training course, with the ultimate aim being that they can perform a meaningful role within an actual incident team—that is to 'hit the ground running'.

Thus the overall training is hierarchical in that general theory is to be learnt and applied at practical training courses or events, not initially learnt via those events.

Interpreting the Framework

Amongst the 17 curriculum topics there are some common features that allow the topics to be usefully grouped for analysis:

1. **General non-mission critical background/underpinning knowledge topics:**
    - Government Policy and SAR Governance
    - NZ SAR Structure and Organisations
    - Law, Ethics and Guidelines
    - International relationships
    - NZ Research and Development
    - Preventative SAR

    Lack of this information set would not necessarily impede participation in an incident management team.

2. **Incident applied skills and knowledge topics:**

    - Management and Leadership Skills
    - Technology
    - Investigation and Search Planning
    - Rescue Planning
    - Major Resource Utilisation
    - Medical and Welfare factors
    - Media management
    - Incident Management

    Whilst a new team member may not necessarily use the full scope or depth of the above topics from the outset, they are key topics, as without them the overall ability to be able to participate in practice exercises as a functioning and effective team member is likely to be diminished.

    Weaving through all the topics within this group are the Management and Leadership skills, as those are the decision-making and interpersonal requisites that give cohesiveness and effectiveness to teams.

3. **Improving future performance skills and knowledge topics:**

    - Incident Review and Evaluation
    - Training and Assessment

These are the topics that, in essence, will increase the potential for improved participation in an incident. One (Review and Evaluation) focuses on the actuality of an incident, the other (Training and Assessment) is focussed on future needs and assessing current performance.

As a generalisation, Group 1 topics are the least likely to be lengthy to train or demanding to learn. Group 2 contains more time and training demand.

Overall the analysis shows that:

- Of the three Groups, Group 1 is the most poorly covered in terms of the Framework.
- The Group 2 topics are in fact more widely trained than Groups 1 and 3 (not surprisingly as Group 2 underpins an organisations mission), and it is in this area that a lot of collective training energy and resources have been directed.
- Training and Assessment out of Group 3 is the least trained.

The current Framework related training

The following pages list the current organisational training events related to the Framework.

- It is important to note that changes to any of that training may impact upon the future coverage of the Framework.
- The training events are arranged in no specific order.
- Each organisation has established its own timings and order of training for the learner, as best suits its own availability of staff and resources.
- This list excludes specialist training such as boat handling, swift water skills etc.
- Organisations with a larger mandated authority train internally to a scope that the others wouldn't. For example the comment was made that Incident Review is primarily a Police and RCCNZ role, hence it was not taught. The training implication is that people from LANDSAR etc. who present at cross-sector courses are unlikely to have met that information, but the knowledge may be pertinent as background during an operation, so revising the general principles at those courses makes sense.
- Pre-requisite courses are ones that contain specific knowledge that will contribute, and are central to, a subsequent course. They become evident when there is a defined order for training within a pathway. Because of the diversified sources of training, pre-requisites were not requested to be identified.

POLICE	RCCNZ	COASTGUARD	LAND SAR	SURF LIFESAVING
CIMS 2	Search and Rescue 1.4	CIMS 2	Preceded by the probationary back country skills and knowledge e.g. river crossing, map and compass etc. Operational team member training including field search and rescue capabilities including specialists such as CaveSAR, Alpine Cliff Rescue, Swift water, search dog etc.	CIMS 2
CIMS 4	CIMS 4	CIMS 4	CIMS 2	Senior Lifeguard —IRB Driver
Search and Rescue Incident Management course	Search and Rescue Organisation	NZ SAR module	CIMS 4	Senior Lifeguard Award—Patrol Captain
Police National SAR course	Communications	Maritime Operator Management Safety System module (MOSS)	Suburban Search included in the suite of Operational team member training above	Instructors Award—IRB
Formal Search Planning	General Aviation	Unit Health and Safety	Formal Search Planning	Advanced Lifeguard Award

TRAINING PATHWAYS

POLICE	RCCNZ	COASTGUARD	LAND SAR	SURF LIFESAVING
Manage the Initial Response Land or Marine	General Maritime	Unit Induction	MTIR	Marine VHF
SAR Leadership course	Operations	Crew Resource Management 1	SAR Leadership	Instructors Award —Surf
SAR Management Course	Search and Rescue Mission Coordinator	Crew Resource Management 2	SAR Management Course	Peer Support Programme
	Navigation	SAR Communications		Examiners Award
	Search Planning	Observation Techniques		
	Chart Work	Search Techniques		
	Meteorology	On scene command		
	Media training	Working with aircraft		
	Search and Rescue Mission Coordinator	SAR Management Course		

By the numbers

- 43 overall training events contribute to the Framework.
- 3 unit standard related courses are contained within the total.

Summary of coverage by topic

TOPIC Note: Organisations may train, to one extent or another, the Topic. However the coverage comparison is to the 2009 curriculum (Appendix 1).	SUMMARY
Government Policy and SAR Governance	Aside from RCCNZ, there is no total training coverage of this topic.
NZ SAR Structure and Organisations	CIMS 2 and CIMS 4 are important introductions to the topic. Coverage gaps exist around Partnerships (including Service Level Agreements and Memoranda of Understanding), Strategic partners; policies, procedures and protocol.
Law, Ethics and Guidelines	Police and RCCNZ coverage exists.
International relationships	Aside from RCCNZ, there is no total training coverage of this topic.
NZ Research and development	Only in Police training (low level coverage).
Preventative SAR	Nil coverage.
Risk Management	Incident risk management is primarily trained in lead agencies only.
Technology	Covered in terms of the technology used by each organisation.
Investigation and Search Planning	Covered via MTIR, IMT, but there appears to be a lack of search planning support, which the upcoming Formal Search Planning course will cover off.
Rescue Planning	Police and RCCNZ appear to have this covered, LANDSAR reliant upon MTIR and recontextualisation of CIMS 4 if possible.
Management and Leadership	Covered through different training mechanisms by all parties and capped off by the cross-sector training courses.
Medical and Welfare factors	Covered through different training mechanisms by all parties.
Media Management	Very limited coverage generally.
Incident Management	Covered by organisations as it applies to their specific area of responsibility.
Major Resource Utilisation	Trained by organisations as it applies to their specific operational resources. Police and RCCNZ have major resource authority so their coverage is greater.
Incident Review and Evaluation	Covered by Police and RCCNZ.
Training and Assessment	Covered by RCCNZ. Surf Lifesaving emphasis is around the assessment process.

Collective training events that contribute to the Framework

CIMS 2 contributes to:

- NZ SAR Structure and Organisations: Procedures and protocols, Basics of CIMS command, control and leadership.
- Management and Leadership: Introduction to management roles, function and responsibilities.

CIMS 4 contributes to:

- NZ SAR Structure and Organisation: Interrelationships, responsibilities and function.
- Investigation and Search Planning: Role requirements in an operational setting.

Manage the initial response (SAR 87) contributes to:

- Investigation and Search Planning: In terms of initial response planning.

Lead a team within an action orientated environment (TPP) contributes to:

- Management and Leadership: Team leadership and team dynamics.
- Medical Welfare Factors: Critical Incident Stress.

SAR Incident Managers Training/SAR Management Training/SAR Incident Controllers Training contributes to:

- NZ SAR Structure and Organisations: mini CIMS 4.
- Risk Management: OSH requirements.
- Investigation and Search Planning: Planning, organizing, managing skills covered within a Police context and SOP's.
- Management and Leadership: Leadership principles, team dynamics and protocols.
- Medical Welfare factors: Critical Incident Stress.
- Media Management: Media training, Media protocols/guidelines/legislation, Image building, Media relationship building.

SAR Leadership Course contributes to (Land, Marine, Air contexts):

- Incident Management
- Risk Management
- Investigation and Search Planning
- Rescue Planning
- Management and Leadership
- Media Management
- Medical and Welfare Factors (Stress)
- Incident Review and Evaluation

The future Framework training pathways

Police SAR training pathway (not in delivery order)

Formal Search Planning
Manage the Initial Response Land or Marine
CIMS 2
Operational Training
Search and Rescue Incident Management Course
Police National SAR Course
CIMS 4
Boatmasters Course and Marine Technical SAD Plotting (for Marine pathway)

SELF STUDY MATERIALS
Government Policy and SAR Governance.
NZ SAR Structure and Organisations.
NZ SAR International Relationships.
NZ Research and Development.

Leadership Management

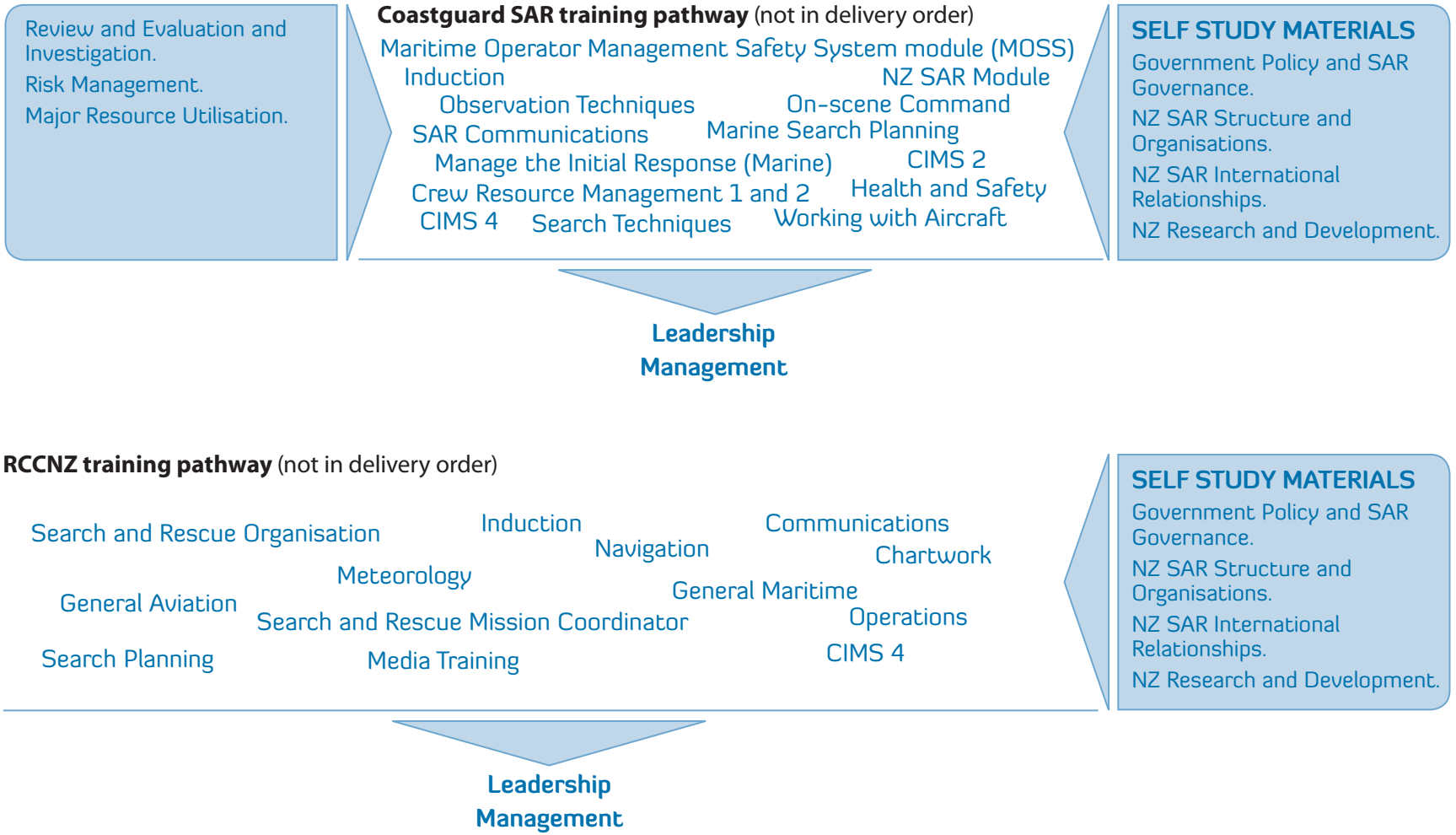
LANDSAR training pathway (not in delivery order)

Review and Evaluation and Investigation.
Risk Management.
Major Resource Utilisation.

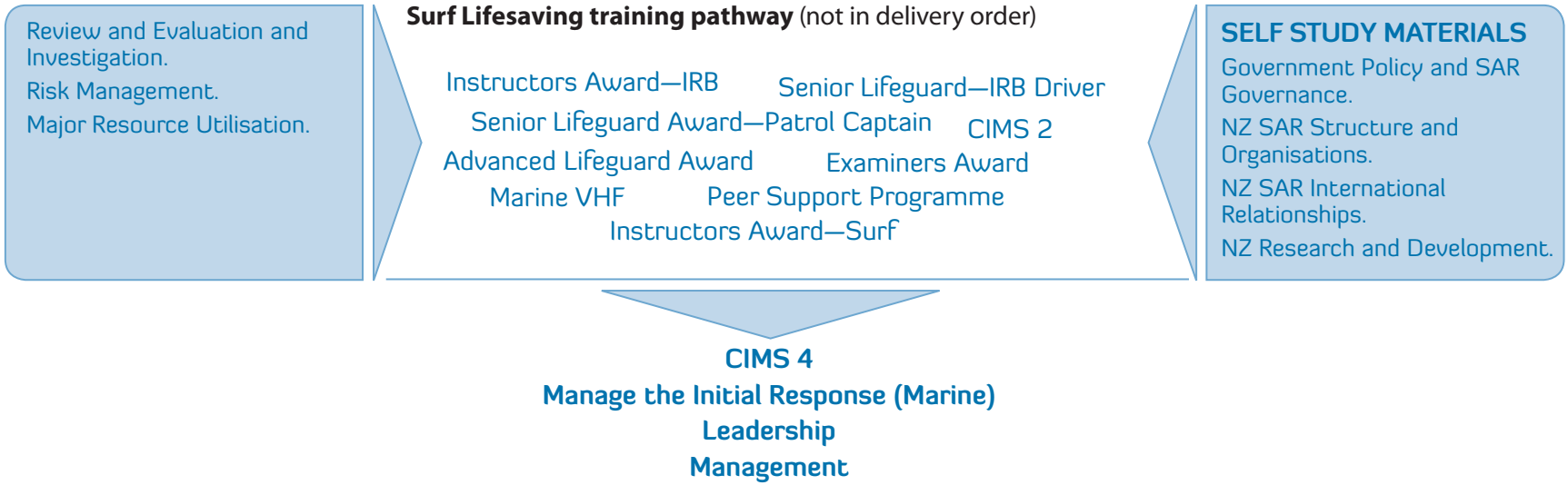
Operational Training
Suburban Search
CIMS 2
Manage the Initial Response (Land)
CIMS 4
Formal Search Planning

SELF STUDY MATERIALS
Government Policy and SAR Governance.
NZ SAR Structure and Organisations.
NZ SAR International Relationships.
NZ Research and Development.

Leadership Management


Review and Evaluation and Investigation.
Risk Management.
Major Resource Utilisation.
Coastguard SAR training pathway (not in delivery order)
Maritime Operator Management Safety System module (MOSS)
Induction
NZ SAR Module
Observation Techniques
On-scene Command
SAR Communications
Marine Search Planning
Manage the Initial Response (Marine)
CIMS 2
Crew Resource Management 1 and 2
Health and Safety
CIMS 4
Search Techniques
Working with Aircraft
SELF STUDY MATERIALS
Government Policy and SAR Governance.
NZ SAR Structure and Organisations.
NZ SAR International Relationships.
NZ Research and Development.
Leadership Management
RCCNZ training pathway (not in delivery order)
Search and Rescue Organisation
Induction
Communications
Navigation
Chartwork
Meteorology
General Maritime
General Aviation
Search and Rescue Mission Coordinator
Operations
Search Planning
Media Training
CIMS 4
SELF STUDY MATERIALS
Government Policy and SAR Governance.
NZ SAR Structure and Organisations.
NZ SAR International Relationships.
NZ Research and Development.
Leadership Management

TRAINING PATHWAYS



Recommendations for the next steps

1. Consolidate and formally recognise the various training pathways related to the Framework

   Agree the stated organisational staircasing courses are training pathways in their own right so that there is clarity and precision about the linking and integration of inter-agency training events.

   Note: Police already have a draft document related to this recommendation.

   Reasoning: The 2009 review referred to the intention to develop a 'coherent platform'. Coherent implies a logical and clear order. That aspect can be further improved in relation to the recording of the training pathways being followed. Currently there are a plethora of knowledge-contributing courses, and without some definition (stamp) of relevance there is the potential for the training pathways to become incoherent and even more fragmented and indecipherable over time. By putting a stake in the ground and formally recognising specific pathways as recommended above, it will

   - define and embed the pathways as a sector standard (expectation)
   - provide a transparent basis on which to review the curriculum in the future
   - allow the publication of the pathways so there is more clarity about the how one becomes an incident manager from within the different sector partners.

   Note: Allied to this consolidation recommendation, there is the future opportunity for the Secretariat to develop and publish a formal competency framework, thus publicly confirming the cross sector status, intent and structure of the curriculum. Work done as part of this project would feed into that. The lack of such a document does not currently impede training delivery, but having a central point of educational relevancy for organisations to refer to would certainly provide greater clarity going forward.

2. Remove the topic Training and Assessment from within the Framework

   Reasoning: This topic is an anomaly when compared to the others. The responsibilities in the topic, and the related budget, fall to specified roles in major stakeholder organisations (for example HR, Training Managers). The training time required to cover the topic adequately, so that understanding is reached and can be applied, is likely to be significant and out of proportion to the overall curriculum, and possibly will not be a role the person will end up performing.

3. Develop written cross-sector information booklets for the non-mission critical, basic topics that are not thoroughly covered currently

   Have written a booklet (or series of fliers) that cover the topics below, and allow it (them) to be sourced (say from a website), and distributed by organisations as part of their training. A lot of the detail will be within the organisations, and with some new content to fill in gaps; it can become a shared resource.

   - Government Policy and SAR Governance
   - NZ SAR Structure and Organisations
   - NZ SAR International relationships
   - NZ Research and Development
   - Preventative SAR

   Reasoning: Those topics probably do not need to be formally trained to be understood, the booklets can give a sector wide perspective and are a convenient way in which to present non-mission critical background knowledge that is patchily covered currently. This approach also allows for diversification of the delivery methodology and reduces effort by each organisation whilst filling an apparent need in the overall curriculum. In the view of the report writer this should be an economic, easy to produce and revise resource.

4. Discuss with Surf Lifesaving, LANDSAR and Coastguard the most convenient way to provide the training that they do not cover in their internal processes

   Reasoning: Surf Lifesaving, LANDSAR and Coastguard all referred to not training topics because they relate to an area in which they had no incident mandate or authority, specifically:

   - Review and Evaluation and Investigation.
   - Risk Management.
   - and the principles of Major Resource Utilisation.

   Nonetheless those topics are included in the Framework as necessary knowledge for a role within an incident management team, therefore some efficient and timely means is needed to put at least the basic principles and key understandings in front of people who have not had prior knowledge. That would be appropriate within the Management course, but given the time pressure on that currently, there may be the capacity for Tai Poutini Polytechnic to offer the topics for example, but that would be subject to the outcome of the conversation with Surf Lifesaving, LANDSAR and Coastguard.

5. Set two specific meeting dates per year to monitor any changes to each organisations contributing Framework pathway

   Reasoning: The Secretariat as an entity has limited control over partner members training supply chains—that agenda is driven primarily by each organisations' own needs. Unless there is a process in place to monitor the Framework alignment over time topics could be 'watered down' or morph into meeting different outcomes and in the process reduce the relevance to the Framework. By having planned check stages there is the opportunity to gather feedback from stakeholders on their organisations current training alignment, to discuss shared training such as the Management course, and to introduce new topics or retire no-longer-relevant topics in a planned and collaborative manner.

6. Seek more online delivery in the sector-wide training on offer from Tai Poutini Polytechnic

Reasoning: Currently the prime delivery method for cross-sector courses is face-to-face training. In contexts requiring the application of skills, master-lead learning and practicing teamwork face-to-face training is an entirely appropriate approach. However, online learning should be integrated into the overall delivery pattern—it is an effective medium to introduce underpinning topic theory, supply study resources, develop collaborative learning and provide individual support mechanisms. That is why it is so widely used in both training and education in NZ.

In particular online learning offers significant benefits for SAR sector volunteer trainees:

- Efficiency and flexibility around time and place, especially for those, who have to fit learning in with unrelated employment. They can access the online information at any time, from anywhere in the country and, if the materials are chunked into appropriate length modules, easy to follow, made engaging, and course community and subject matter support is available, learning can take place as well if not better than other modalities.
- Compared to face-to-face training there are cost benefits in terms of the resources needing to be drawn upon to deliver the learning.
- Face-to-face course time can be reduced, trainee's present at courses with a basis of information already known meaning trainers can recap and have more time in which to focus on other aspects.

7. Consider the feasibility of having a cross-organisational SAR Incident Managers training record database

This ties in with the earlier recommendation related to confirming/recognising preferred pathways. For example a person could initially be recorded as having completed all their organisation delivered pathway, and then the collective recognised training opportunities such as the MTIR, the Leadership and Management course could be marked off once completed. Whilst this implies extra administration time for busy people, it could be done online—a login, entering of a name, choosing an organisation and a couple of mouse clicks to note training completed.

Reasoning: Currently, aside from anecdotal information, there would appear to be no means of establishing specific numbers in the staircase training and at the various stages of competency (and a means of establishing capacity for management roles at SAROP's and SAREX).

To that end a means of knowing the numbers of trainees would help the Secretariat to gain some transparency on the overall cohort, and have access to useful data that would feed into the yearly training provision planning process.

8. Promote and grow the Management course as a SAR sector premier event that finishes off the theory training

Reasoning: The Management course brings together a range of previous trained topics in a lecture/workshop/practise environment that appears invaluable for relationship building, aligning people and information from previously disparate training events to a specific focus, and providing the opportunity for the consolidation of knowledge and an understanding of other organisations perspectives. In the report writer's view the sector has done well to establish that course, as, without it, there would have been more training topic gaps recorded, plus the shared understanding aspect is critical to bind together effective teams.

To maximise the gain from that training, a participant should already have information from underpinning training, so pre-requisite training before participation in the management course could beneficially be agreed with each organisation (refer to Recommendation 5 above).

If there is the wish or need to grow the course, it is recommended that different delivery methodologies be considered (paper based or online) as pre course work so as to make maximum benefit of the off job/on course time.

9. Aim to be represented at EMQUAL

Reasoning: Given the national qualification revisions, and the emergency management volunteer training funding changes currently underway, it would be strategically advantageous to be in the primary information flow and be able to influence decisions. CIMS 2 and 4 address important underpinning knowledge; efforts need to be made to ensure that the qualification relevance remains for SAR.

10. Relate any formal academic recognition to collaborative training events only

Reasoning: Agency and organisational training is primarily focussed on meeting, in a responsive manner, mandated authority outcomes. There is likely to be considerable reluctance to realign that to meet the imposition of topics within a common cross sector Certificate or Diploma.

Cross sector events do not intrude into the primary training patterns within organisations, so there is more collective Secretariat influence in the structuring of cross sector courses. As these tend to be 'pinnacle' or cap stone events that bring in people who already have a background of training, it would be appropriate to assess and recognise their performance at those events, thus setting in place a transparent sector competency standard.

New Zealand Qualifications Authority Certificates and Diplomas

Coincidental discussions have arisen during the development of this report regarding the desirability of training recognition via National Qualifications (Certificates, Diplomas). It is not within the scope of the report to provide a definitive recommendation to that topic, but there are several key factors that should be kept in mind if considering that option in future.

1. Approximately 90% of SAR people are volunteers (drawn from the 2009 Review) participating for altruistic reasons. There are limits to their time (and goodwill)—they will most likely to value more highly giving their time to training that is related to the mission they have volunteered for, as opposed to the purpose of gaining a national qualification.
2. Each sector organisations own training agenda is driven by their need to address the deliverables that their funding mandate requires. They are unlikely to compromise on that to adapt to the needs of a generic, cross-sector, qualification.
3. For qualification-focussed courses, participation alone is not enough to gain formal recognition—some form of assessment or recognition of current competency needs to take place (as opposed to best practice training feedback) along with the related involvement of personnel with specific assessment expertise. This added aspect might not necessarily be appropriate for every course.
4. There are likely to be those trainees who would like recognition in some way for their professional development or career progression. Currently participation in Tai Poutini Polytechnic courses can lead to formal recognition if the related unit standard/assessment requirements are met. It is feasible that participation in other sector wide training events leads to an acknowledgement given by the delivery organisation (as opposed to NZQA recognition) thus recognizing the person and providing a 'bread crumb trail' for any subsequent recognition of prior learning by a polytechnic or private training establishment.
5. If some form of extra formal recognition is felt to be important, there is one area where that is could more readily be incorporated —at events that occur beyond organisations own training pathways. These events are cross-sector, and do not intrude into the training patterns within organisations, so there is more direct influence over the structuring of the course and what takes place within it to align with the needs of qualifications. As these cross-sector training courses tend to be 'pinnacle' events that bring in people who already have a background of training, it would be more appropriate to assess and recognise their performance at the events, thus setting in place a defined training standard, such as Tai Poutini Polytechnic currently do with the courses they offer.

Appendix 1

The expanded 2009 Core Curriculum topics

Topics, Sub Topics, Learning Outcomes, Competencies

TRAINING TOPIC	Sub Topics (from NZ SAR Review Group Dec '09):	Course members who have completed the topic training will have the knowledge and skills to:	As part of that they will be able to:
GOVERNMENT POLICY AND SAR GOVERNANCE	NZ Government/Cabinet/ ODESC NZSAR Council, Consultative Committee, Secretariat NZ Police NZ Defence Force Ministry of Transport Civil Aviation Authority Maritime NZ/Rescue Coordination Centre NZ Ministry of Civil Defence and Emergency Management Funding, analysis and reporting.	Identify the flow down of authorisation and the mandated responsibilities.	Demonstrate knowledge of the Government authorisations that empower NZ SAR. Describe how the mandates are implemented by sector organisations. Explain the funding stream and the obligations that are implicit in that.

NZ SAR STRUCTURE AND ORGANISATIONS	Definition of SAR RCCNZ, NZ Police: Structures, roles, responsibilities Partnerships (including Service Level Agreements and Memoranda of Understanding) Strategic partners Policies, procedures (CIMS/ IAMSAR) and protocols	Define the overall NZ SAR structure and describe the working relationships between organisations.	Describe the obligations of the lead agencies. Explain the strategic partnerships between those agencies and other NZ SAR organisations.
LAW, ETHICS AND GUIDELINES	NZ Law Common law Aviation and Maritime law International law(s) and conventions Ethics and Codes of Conduct Guidelines	Recognise the applicable legal framework, and operational core values and codes of conduct.	Demonstrate knowledge of the legal framework within which NZ SAR operates. Describe the core ethical values and codes of conduct within a NZ SAR operational context.
INTERNATIONAL RELATIONSHIPS	Partnerships, Trends and issues International SAR organisation(s) Interpol Research and development	Describe existing international relationships and SAR trends.	Identify the international organisations NZ SAR agencies have working relationships with. Describe the nature of the relationships. Explain current international trends, issues, research and development.

TRAINING PATHWAYS

NZ RESEARCH AND DEVELOPMENT	NZ statistics and trends International statistics and trends Analysis's and evaluation of SAROP's Emerging developments Interpreting and applying research	Interpret how NZ statistics, trends and research are applied to SAR.	Demonstrate knowledge of current NZ statistics and trends, issues, research and development. Demonstrate knowledge of how to apply research data to SAROP's.
PREVENTATIVE SAR	High risk sectors National prevention strategies Public education	Explain the public education and preventative work that is being undertaken nationally.	Demonstrate knowledge of high risk sectors Identify SAR preventative and education strategies.
RISK MANAGEMENT	Theory and Practice (with reference to Standard NZS 4360	Predict, and describe how to manage, operational risk.	Demonstrate knowledge of the risks for lead/ support agencies and external risks. Be able to describe risk mitigation processes.
TECHNOLOGY	Alerting devices Tracking devices Detection devices Computer software Communications SAR response system Systems, theory, practical use	Differentiate the use of NZ SAR technologies within an operation.	Identify available SAR related technology. Explain the appropriate use of that technology within a SAR response communications system.

INVESTIGATION AND SEARCH PLANNING	Pre operational, Operational, Post operational planning principles, and application of the principles	Apply the basic principles of investigation and search planning.	Demonstrate knowledge of the basic principles of Pre-Operational, Operational and Post-Operational investigation and planning for land, marine and air searches. Understand how to apply those principles in an operational setting.
RESCUE PLANNING	Pre operational, Operational, Post operational planning principles, and application of the principles	Apply the basic principles of rescue planning.	Demonstrate knowledge of the theory and principles of land, marine and air rescue planning. Identify and describe how to apply those in an operational system.
MANAGEMENT AND LEADERSHIP	Management theory and the application of that within a SAR setting General concepts of leadership and good management practise are understood within a SAR setting Communication protocols Interagency/intergroup/ Interpersonal	Describe effective operational management styles.	Demonstrate knowledge of NZ SAR management roles and responsibilities. Describe leadership styles and identify their own personal leadership style. Demonstrate knowledge of team dynamics within a NZ SAR setting. Explain management level communication protocols between agencies and groups.

TRAINING PATHWAYS

MEDICAL AND WELFARE FACTORS	Physiology and Psychology Stress management Crew Resource Management	Predict and manage medical and welfare factors as they apply to SAR teams.	Physiology/psychology? Demonstrate knowledge of the causes and indicators of stress. Describe key stress indicators in an operational setting.
MEDIA MANAGEMENT	Media use Media training Media protocols/guidelines/ legislation Image building Media relationship building	Describe the principles of media management during a SAR operation.	Identify the legislation, protocols and guidelines that relate to the media. Determine the best use of the media in terms of a SAR operation. Identify the factors that contribute to a positive working relationship with the media.

INCIDENT MANAGEMENT	Structures and systems (e.g. CIMS/IAMSAR) Planning/Intelligence Operations Logistics Roles and responsibilities (e.g. CIMS/IAMSAR roles) Generic documentation Information management Coordination, command and control Decision-making processes (including external influences on decision-making) Administration Environmental factors (terrain/marine/air analysis)	Recognise the key tasks in incident management.	Describe the role and purpose of incident management. Demonstrate knowledge of the elements, terminology, and structure of incident management. Demonstrate knowledge of control procedures in an incident management environment.
MAJOR RESOURCE UTILISATION	Safety Principals Planning considerations Communication procedures	Describe the management needs of major resources.	Identify the safety and planning needs for major resources such as aircraft, vehicles and vessels. Describe the related communication procedures.

INCIDENT REVIEW AND EVALUATION	Operational Post operational Investigation Analysis Report Circulation/communication Pre plan review (confirmation/change)	Describe the application of incident review and evaluation processes.	Understand the objectives of, and key processes involved in, an operational and post operational incident review and evaluation.

TRAINING AND ASSESSMENT	Using the Training cycle Needs analysis—skill gap identification • organisation • group • individual needs analysis Planning of training programmes Resourcing and implementation of training • national programmes • local programmes • interagency collaboration (e.g. SAREXs) Evaluation of training, with feedback into training needs identification (with re-entry into the Training Cycle) of ongoing and emerging training activities Refer to SAR role competencies Performance Assessment process (using competency documentation where appropriate)	Describe how to improve performance through training.	Demonstrate knowledge of the training cycle process and timing. Identify how to use the training cycle to conduct needs analyses, and to plan, resource and implement training. Demonstrate knowledge of how to apply training evaluations and the relationship of those with training needs. Describe the performance assessment process.

Appendix 2

Existing training pathways within organisations

Topic	Course members who have completed the topic training will have the knowledge and skills to:	Related training Sub Topics (drawn from NZ SAR Review Group Dec '09)	Police	RCCNZ	LANDSAR	Coastguard	Surf Lifesaving
Government Policy and SAR Governance	Identify the flow down of authorisation and the mandated responsibilities.	• NZ Government/ Cabinet/ODESC • NZSAR Council, Consultative Committee, Secretariat • NZ Police • NZ Defence Force • Ministry of Transport • Civil Aviation Authority • Maritime NZ/Rescue Coordination Centre NZ • Ministry of Civil Defence and Emergency Management • Funding, analysis and reporting.		• Search and Rescue 1.4 covers most of this.	• Could be covered in some of the CIMS training when they talk about mandated authorities for control.	• NZ SAR module	

NZ SAR Structure and Organisations	Define the overall NZ SAR structure and describe the working relationships between organisations.	• Definition of SAR • RCCNZ, NZ Police: Structures, roles, responsibilities Partnerships (including Service Level Agreements and Memoranda of Understanding) • Strategic partners • Policies, procedures (CIMS/IAMSAR) and protocols	• CIMS 2 • Search and Rescue Incident Management course (Police Procedures) • National Police SAR course	• Search and Rescue Organisation • CIMS 4	• CIMS 2 and CIMS 4 • Outlined in LANDSAR Field Guide issued to all new members—so some opportunity for self directed learning (at a new member level)	• NZ SAR module • CIMS	• Touched on in the Advanced Lifeguard School where all candidates gain the CIMS 2 qualification
Law, Ethics and Guidelines	Recognise the applicable legal framework, and operational core values and codes of conduct.	• NZ Law • Common law • Aviation and Maritime law • International law(s) and conventions • Ethics and Codes of Conduct • Guidelines	• Search and Rescue Incident Management course (Police Act, Coroners Act, Police Procedures) • National Police SAR course	• General Aviation • General Maritime • Search and Rescue Organisation	• Some law is covered in the Suburban Search course particularly as it pertains to entry onto private premises or the use of force to restrain a lost or missing subject. • Trust is covered in the SAR Leadership course, if participated in.	• NZ SAR module • Maritime Operator Management Safety System module (MOSS) • Unit Induction • Unit Health and Safety	• Marine Law covered in Senior Lifeguard—RB driver but only to a very basic level

International SAR relationships	Describe existing international relationships and SAR trends.	• Partnerships, • Trends and issues • International SAR organisation(s) • International Search and Rescue Regions • Interpol • Research and development		• Search and Rescue Organisation • General Aviation • Operations • General Maritime		• NZ SAR module • Covers (a) but not (b) or (c).	
NZ Research and Development	Interpret how NZ statistics, trends and research are applied to SAR.	• NZ statistics and trends • International statistics and trends • Analysis's and evaluation of SAROP's • Emerging developments • Interpreting and applying research	• National Police SAR course does deal with some trends analysis—low level			• NZ SAR module • Some statistics and trends presented	
Preventative SAR	Explain the public education and preventative work that is being undertaken nationally.	• High risk sectors • National prevention strategies • Public education				• NZ SAR module	

Risk Management	Predict, and describe how to manage, operational risk.	Theory and Practice (with reference to Standard NZS 4360	• Search and Rescue Incident Management course • National SAR course (Hazard identification/ management) • SAR Management Course	• Search and Rescue Mission Coordinator	• No course currently exists however work is progressing to customise or contextualize the existing 2 day MSC Outdoor Risk Management course for SAR • General risk management is touched on in the MTIR course—but this is nowhere near sufficient.	• Crew Resource Management 1 • Crew Resource Management 2	• Senior Lifeguard Award—Patrol Captain • Instructors Award—IRB • Advanced Lifeguard Award • For SLSNZ, no wider perspective not referenced to NZS4360
Technology	Differentiate the use of NZ SAR technologies within an operation.	• Alerting devices • Tracking devices • Detection devices • Search planning software • Communications – SAR response system – Systems, theory, practical use	• Search and Rescue Incident Management course • National SAR course (Communication Training) • SAR management course	• Operations • Communications • General Maritime • General Aviation	Operational team member training • Navigation—GPS • Radio Communication	• SAR Communications	• Marine VHF • Exposure to MVHF and Callout squads may use GPS and PLB's but no formal training offered

TRAINING PATHWAYS

Investigation and Search Planning	Apply the basic principles of investigation and search planning.	Pre operational, Operational, Post operational planning principles, and application of the principles	• Manage the Initial Response course (SAR87) • CIMS 2 • Search and Rescue Incident Management • National SAR course (Search Methods, Compass, Maps and Charts) • Search Techniques (TPP) • SAR Management Course	• Operations • Search and Rescue Mission Coordinator • General Aviation • General Maritime •	MTIR—for land • Formal Search Planning will contribute to this when developed.	• Search techniques, • On scene command • Our people will also have access to Marine—Managing the Initial Response • SAR Managers Course.	• Senior Lifeguard Award—Patrol Captain • Advanced Lifeguard Award
Rescue Planning	Apply the basic principles of rescue planning.	Pre operational, Operational, Post operational planning principles, and application of the principles	• Manage the Initial Response course (SAR87) • CIMS 2 • Search and Rescue Incident Management course • SAR Management course	• Operations • Search and Rescue Mission Coordinator • General Aviation • General Maritime • Navigation • Chartwork • Meteorology • Search planning	MTIR—for land (very limited relevance for rescue or recovery—the focus is on search) CIMS 4 possibly if delivery was contextualized appropriately There is also some training conducted in avalanche rescue—a large component of which is the management of the rescue site—SAR114 refers. Formal Search Planning will contribute to this when developed.	• Search techniques • On scene command • Working with aircraft, • Victim Recovery Observation Techniques	• Senior Lifeguard Award—Patrol Captain • Advanced Lifeguard Award

Management and Leadership	Describe effective operational management styles.	• Management theory and the application of that within a SAR setting – General concepts of leadership and good management practise are understood within a SAR setting • Communication protocols – Interagency/ intergroup/ Interpersonal	• CIMS 2 • Search and Rescue Incident Management • SAR Leadership course • SAR Management Course	• Search and Rescue Mission Coordinator • Communications	• Action Orientated Leadership (AOTL) course	• Crew Resource Management 2 • Marine Search planning (IMT?)	• Instructors Award (Interpersonal communication) • Senior Lifeguard Award—Patrol Captain (Team leadership)
Medical and Welfare factors	Predict and manage medical and welfare factors as they apply to SAR teams.	• Physiology and Psychology • Stress management • Crew Resource Management	• SAR Leadership course (Critical Incident Stress) • National SAR course (Physiology)	• Search and Rescue Mission Coordinator (Hypothermia, Medical Advice and Medical Assistance)	• AOTL • The old MLSO course also did this but not sure it is now covered in the MTIR	• Crew Resource Management 1 • Crew Resource Management 2 • Observation Techniques	• Advanced Lifeguard Award (Crisis management) • Peer Support Programme Critical incident policies
Media Management	Describe the principles of media management during a SAR operation.	• Media use – Media training – Media protocols/ guidelines/ legislation – Image building • Media relationship building	• Search and Rescue Incident Management course • SAR Management course	• Operations • Media training (separate RCCNZ course)	• Touched on in the MTIR and Formal Search Planning courses • Some guidelines in the Field Guide		

TRAINING PATHWAYS

Incident Management	Recognise the key tasks in incident management.	• Structures and systems (e.g. CIMS/IAMSAR) – Planning/ Intelligence – Operations – Logistics • Roles and responsibilities (e.g. CIMS/ IAMSAR roles) • Generic documentation • Information management • Coordination, command and control • Decision-making processes (including external influences on decision-making) • Administration • Environmental factors (terrain/ marine/air analysis)	• Search and Rescue Incident Management course • CIMS 4 • National Police SAR course	• Search and Rescue Mission Coordinator • General Aviation (Environmental factors) • General Maritime (Environmental factors)	• CIMS 2 • CIMS 4 • MTIR	• CIMS	• Advanced Lifeguard Award • Senior Lifeguard Award—Patrol Captain • When dealing with a major incident the senior patrol members will manage the situation and hand over to Police once they are on scene.
Major Resource Utilisation	Describe the management needs of major resources.	• Safety Principals • Planning considerations • Communication procedures	• Search and Rescue Incident Management course (Resource Management) • CIMS 4	• Search and Rescue Mission Coordinator (SMC 4) • General Aviation • General Maritime		• Crew Resource Management 2 • SAR Communications • Working with aircraft.	

Incident Review and Evaluation	Describe the application of incident review and evaluation processes.	• Operational • Post operational – Investigation – Analysis – Report – Circulation/ communication – Pre plan review (confirmation/ change)	• SAR leadership course (Brief/ Debrief) • SAR Management course	• Search and Rescue Mission Coordinator—Operational			• Critical Incident reports (SLSNZ Staff) for major incidents

TRAINING PATHWAYS

Training and Assessment	Describe how to improve performance through training.	Using the Training cycle • Needs analysis—skill gap identification – organisation – group – individual needs analysis • Planning of training programmes • Resourcing and implementation of training – national programmes – local programmes – interagency collaboration (e.g. SAREXs) • Evaluation of training, with feedback into training needs identification (with re-entry into the Training Cycle) of ongoing and emerging training activities • Refer to SAR role competencies Performance Assessment process (using competency documentation where appropriate)		Search and Rescue Mission Coordinator SMC 11—SAREX's			• Instructors Award—Surf Lifeguard (Member Education Framework) • Instructors Award—IRB • Examiners Award (Assessment and evaluation) • Examiners Award—IRB

Xperts