



New Zealand Search and Rescue Secretariat

7 December 2011

MOSR5-8

Distribution: NZSAR Council
NZSAR Consultative Committee

NEW ZEALAND SEARCH AND RESCUE (NZSAR) 2011 STOCKTAKE

Background

1. This stocktake of search and rescue (SAR) people and assets within New Zealand's Search and Rescue sector describes the size of the NZSAR sector, the elements that comprise it, its key capabilities, and identifies the direct costs to the Government for SAR services.
2. The stocktake acknowledges that for significant parts of the sector, the SAR role represents only a small part of their work, and that many key SAR assets exist primarily for other purposes. People and assets that were identified as being actively involved with SAR in some capacity during 2011 were included in this stocktake.
3. The NZSAR stocktake is made available as an important information resource for key SAR stakeholders and decision makers. It provides a coherent and unified picture of the sector, and provides a measure of the sector's scale within New Zealand society. The stocktake is public information and is updated annually.

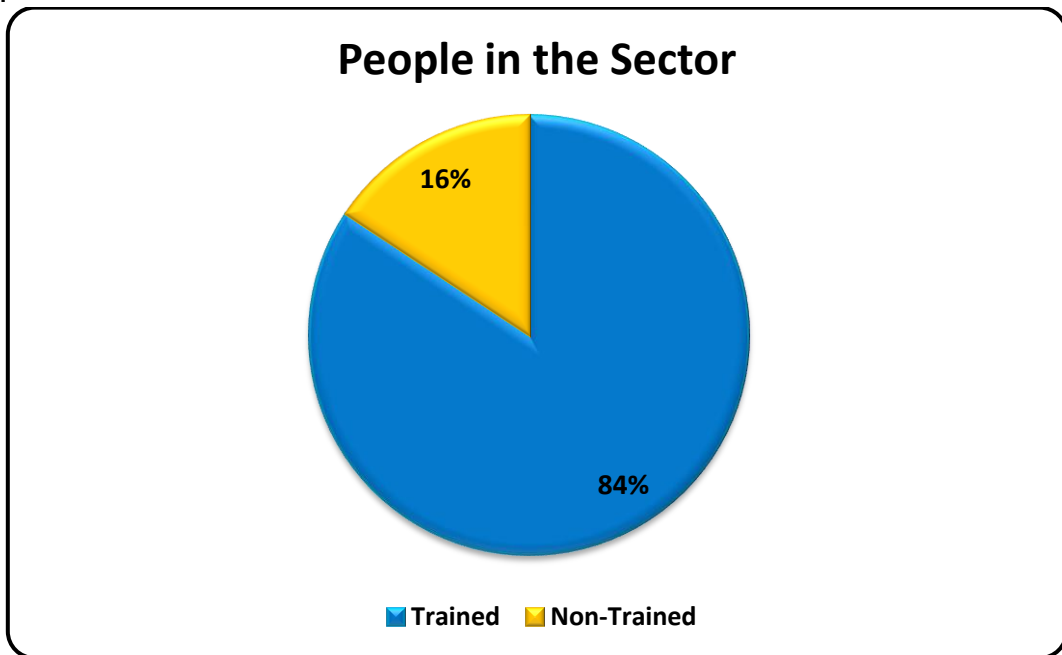
People in the NZSAR sector

4. A total of 13,828 people are directly involved in the NZSAR sector. Of the people involved in the sector, 84 percent are trained for search and rescue, with the remaining 16 percent working in support of them. Table 1 expands this data, and figure 1 illustrates how this total is comprised.
5. In addition to these figures, the NZSAR sector can, and on occasion does, draw upon considerable latent SAR capable people existing within the New Zealand Defence Force, Department of Conservation, and the New Zealand Fire Service. This capacity is in excess of 33,000 people.

Table 1

SAR Trained			Non SAR Trained		
Paid	Part paid	Not paid	Paid	Part paid	Not paid
338	745	10,575	87	36	2,047

Figure 1

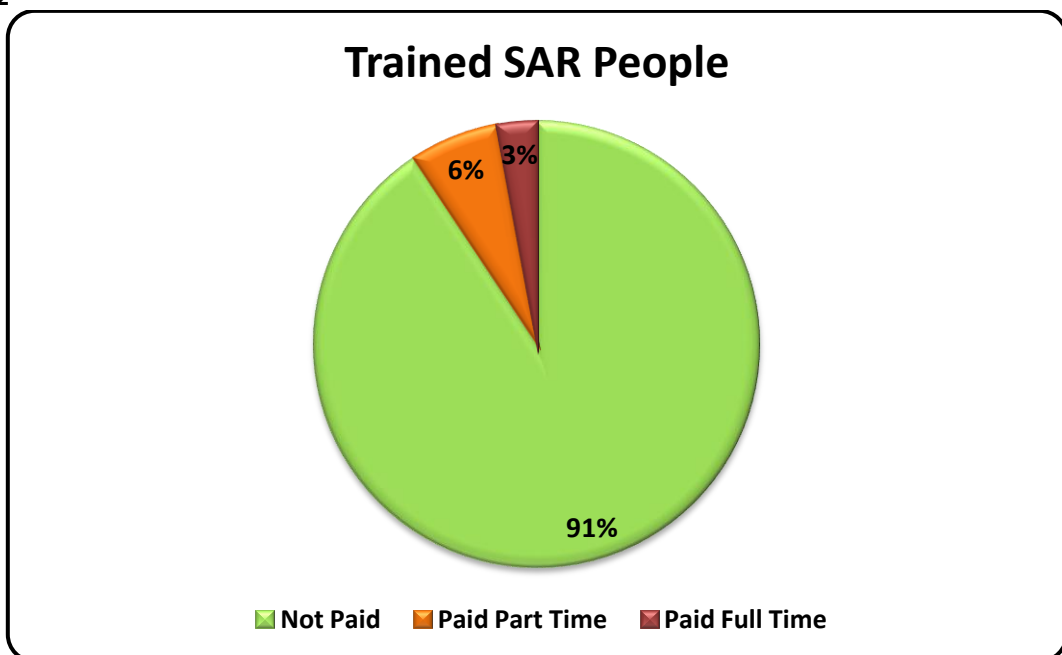


6. **People trained for search and rescue.** Non-paid volunteers comprise 91% of SAR trained New Zealanders involved with SAR. Those SAR trained people who receive some form of remuneration in either a full or part time basis comprise only 9% of the sector. There are 264 Police SAR Squad members included in the paid part time category. This reflects that the SAR work they undertake is in addition to their general policing duties.

Table 2

Paid Full Time	Paid Part Time	Not Paid
338	745	10,575

Figure 2



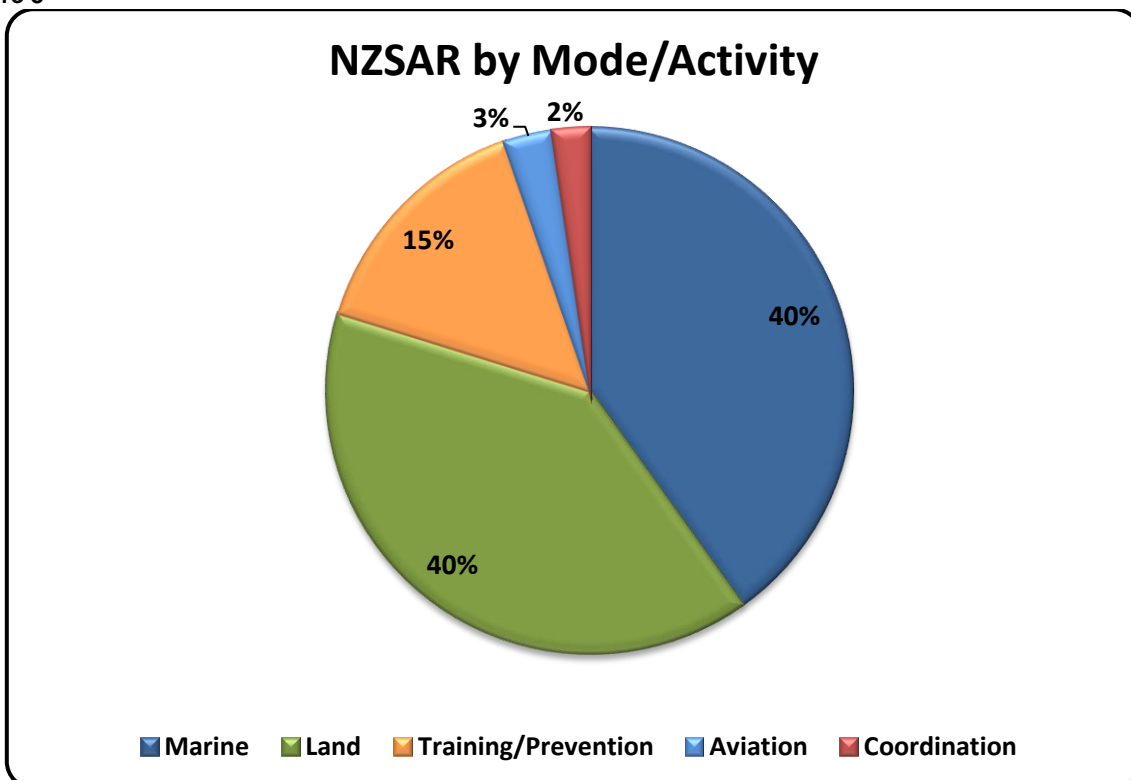
7. **NZSAR by mode.** The 13,828 people involved in the sector can be divided into five main categories by their activity type, or mode of operation, as follows:

- i) **Marine based SAR** (5,548 people, 40% of the sector). Surf Life Saving New Zealand and the New Zealand Coastguard are the primary organisations involved in this aspect of NZSAR activities.
- ii) **Land based SAR** (5,481 people, 40% of the sector). Land Search and Rescue NZ and Amateur Radio Emergency Communications (AREC) are the primary organisations involved in this aspect of NZSAR activities.
- iii) **Training and Prevention** (2,074 people, 15% of the sector). Most SAR training is carried out in-house by each of the SAR organisations. The Mountain Safety Council of NZ and the Coastguard Boating Education Service are the primary organisations involved in providing preventative education services to the public of New Zealand.
- iv) **Aviation Support for SAR** (408 people, 3% of the sector). While this segment is relatively small, it provides a great deal of support to a large number of SAR incidents across all three modes; land, marine, and air. This is mainly provided by the various EMS Helicopter Trusts around the country.
- v) **Coordination** (317 people, 2% of the sector). People involved in coordination of SAR operations, and in providing strategic direction and policy advice for the sector. The majority of these people belong to New Zealand Police and Maritime New Zealand’s Rescue Coordination Centre, Maritime Operations Centre and the NZSAR Secretariat.

Table 3

Coordination	Aviation	Training/Prevention	Land	Marine
317	408	2,074	5,481	5,548

Figure 3



Assets in the NZSAR sector

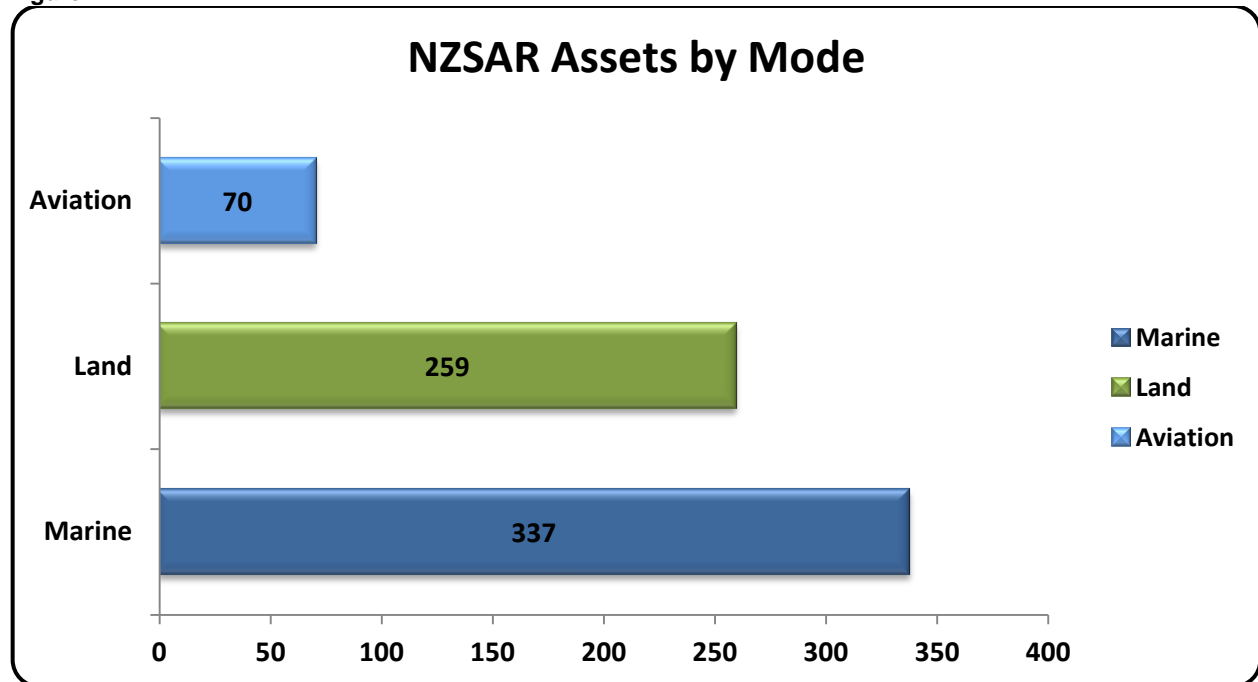
8. **Assets by Mode.** While the sector’s most important component is its people, these people utilise a wide range of physical assets to support them in SAR operations. The sector has a number of physical assets to enable SAR operations to be conducted throughout the search and rescue region. Table 4 and figure 4 show the break down of assets across the modes of aviation, land, and marine.

Table 4

Aviation		Land		Marine	
Asset	Qty	Asset	Qty	Asset	Qty
Helicopter	39	4WD (Police)	150	IRB	210
Fixed Wing	31	ATV (SLSNZ)	109	Boat	123
				Hovercraft	1
				Other	3
Total	70	Total	259	Total	337

Note: approximately 1,100 fishing boats around NZ are also occasionally used for SAR

Figure 4



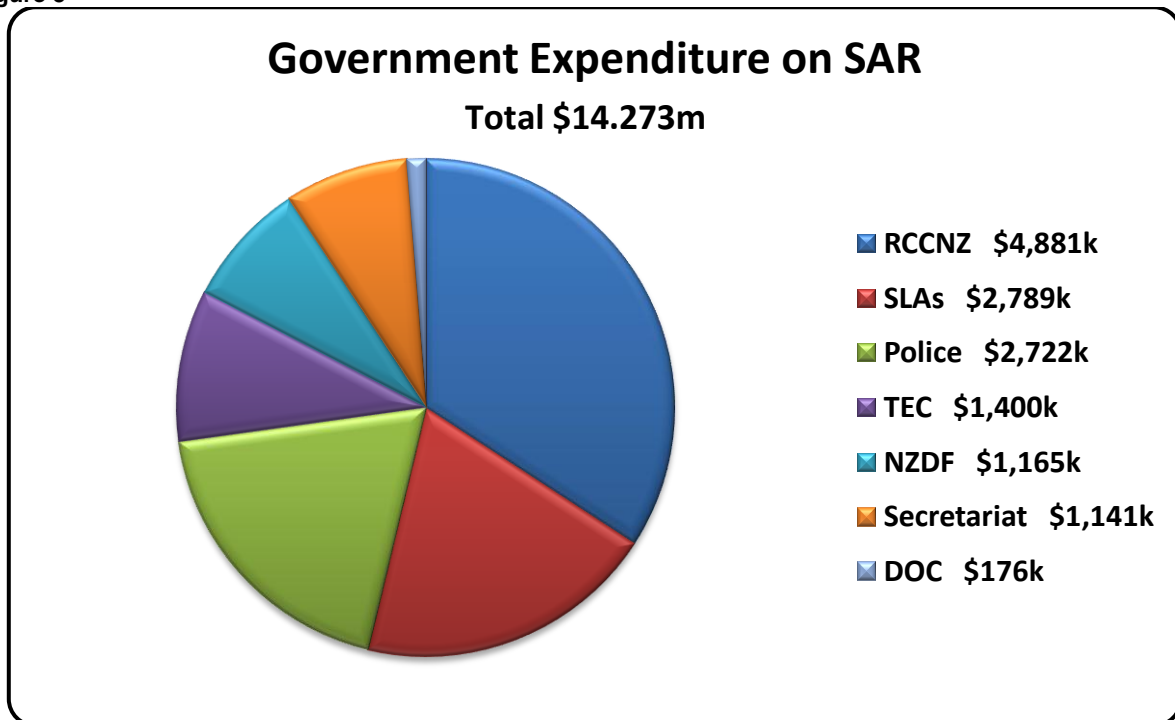
9. Few SAR assets are dedicated specifically for SAR work at all times. They are mainly multi-use platforms, and perform SAR tasks as a priority when it is required of them. An example is the New Zealand Defence Force’s Squadron of P3K Orions. While one aircraft and crew remains on SAR alert at all times, most of their work relates to military and other surveillance tasks. This report also recognises that there are a number of only occasionally utilised SAR assets not included in this stocktake. Examples include commercial fishing vessels and non Emergency Medical Service helicopters.

Government Funding for Search and Rescue

10. The government makes a major investment in search and rescue each year. Much of the expenditure is variable in response to the number, length, and type of SAR operations conducted in a given year. There are also significant overhead costs to ensure coordinating services are available 24/7, as well as ensuring SAR people are trained and equipped for SAR operations.

11. The Government's investment in search and rescue for the 2010/11 financial year was \$14.273m. For the first time, \$4.679m of the Government SAR funding was sourced from the fuel excise duties paid by recreational boat users. This was directed to the costs of the NZSAR Secretariat, the Service Level Agreements with key providers and part of the Rescue Coordination Centre New Zealand's (RCCNZ) costs. Figure 5 shows the breakdown for \$14.273m spent by the government for SAR purposes in the 2010/11 financial year.

Figure 5



Notes:

- The full cost for the provision of SAR services is significantly greater than the figure shown. Costs that are not included in the diagram above include the funding received by non-governmental agencies involved in SAR. Much of these agencies funding comes from the local communities. In addition, some multi-purpose Government agencies are also unable to separate out the SAR component of their overhead, capital and infrastructural costs.
- New Zealand Defence Force (NZDF) costs are marginal costs only, reflecting fuel and other operational expenses, but not including the costs of wages, asset maintenance, or training.
- Rescue Coordination Centre New Zealand (RCCNZ) costs are subject to final auditing.
- The NZSAR Council has Service Level Agreements (SLAs) with Coastguard NZ, Surf Life Saving NZ, LandSAR NZ, and Amateur Radio Emergency Communications (AREC).

Summary

12. With over thirteen thousand people being directly involved, the New Zealand Search and Rescue sector is a significant part of New Zealand society. The core of the sector is its volunteers who comprise ninety percent of everyone involved. These people, together with a hundreds of vehicles, aircraft, and rescue vessels, make an invaluable contribution to the safety of New Zealanders, visitors to New Zealand, and others within the New Zealand search and Rescue Region. Annexes A, B, C and D describe the major SAR assets and numbers of people within the sector.

Carl van der Meulen
Senior Advisor
NZSAR Secretariat

Annexes:

- A. SAR People by Organisation
- B. Major Marine Assets
- C. Major Aviation Assets
- D. Major Land Assets

Annex A SAR People by Organisation

Organisation	SAR Trained			Not SAR Trained			Total	Latent Capacity
	Paid Full time	Paid Part time	Non Paid	Paid Full time	Paid Part time	Non Paid		
NZSAR Secretariat	0	0	0	2	0	0	2	0
Civil Aviation Authority	0	0	0	1	0	0	1	0
New Zealand Police	7	264	0	0	0	0	271	10,000
Rescue Coordination Centre (MNZ)	14	0	0	8	1	0	23	0
New Zealand Defence Force	31	0	0	0	0	0	31	10,000
Department of Conservation	5	9	0	0	0	0	14	0
Maritime Operations Centre	20	0	0	0	0	0	20	0
NZ Mountain Safety Council	0	0	0	14	24	1,617	1,655	0
SARINZ	14	49	12	0	0	0	75	0
EMANZ	9	20	0	0	0	0	29	0
Tai Poutini Polytechnic	2	0	0	0	0	0	2	0
Dunedin Marine SAR	0	0	35	0	0	0	35	0
SAR Aviation	122	29	146	41	0	0	338	0
Surf Life Saving New Zealand	44	372	2,744	0	0	0	3,160	0
Coastguard New Zealand	17	0	2,192	9	5	130	2,353	0
Coastguard Boating Education Service	0	0	0	9	4	300	313	0
LandSAR NZ	8	2	4,169	3	2	0	4,184	0
Alpine and Cliff Rescue Teams	0	0	(251)	0	0	0	(251)	0
Cave SAR	0	0	(191)	0	0	0	(191)	0
SAR Dogs	0	0	29	0	0	0	29	0
Airport Fire Rescue	39	0	0	0	0	0	39	0
Amateur Radio Emergency Communications	0	0	1,244	0	0	0	1,244	0
Antarctica NZ	6	0	4	0	0	0	10	30
NZ Fire Service	0	0	0	0	0	0	0	10,000
TOTAL	338	745	10,575	87	36	2,047	13,828	30,030

Note: The alpine/cliff rescue and cave SAR members are included in the LandSAR NZ figures

Annex B Major Marine Assets

Organisation	Asset	Qty	Comment
Surf Life Saving New Zealand	Inflatable Rescue Boat	210	
Coastguard New Zealand	Coastguard Rescue Vessel	77	
Coastguard New Zealand	Private Rescue Vessel	33	Utilised by Coastguard on a formal basis
New Zealand Police	Rescue Vessels	7	
	Dive Squad	1	Asset is squad members, not a vessel
New Zealand Defence Force	Naval vessel	1	On 8 hours notice for SAR
EMANZ	Rescue vessels	3	
Commercial fishermen	Fishing Boats	1,100	Approximate numbers – occasional use
Wellington International Airport	Rescue vessels	2	
Auckland International Airport	Rescue craft	4	Includes 1 hovercraft

Annex C Major Aviation Assets

Organisation	Location	Type	Qty	Special Equipment
RNZAF	Whenuapai	P3K2 Orion	1	Radar/Radio/Infra-red/Deployable Search and Rescue Apparatus/Deployable minimum aid delivery device
RNZAF	Ohakea	UH1H Iroquois	1	Radio/Nitesun/Winch
NZ Police	Auckland	A350 Squirrel	1	FLIR, NiteSun, Griro Bino, Moving Map
Northland Emergency Services Trust	Whangarei	Sikorski S76	2	NVG/Liferaft/Winch(1)/406MHz DF/Night Scanner light
Auckland Rescue Helicopter Trust	Mechanics Bay Auckland	BK117B2 Kawasaki	2	NVG/600lb and 450lb Winch/Nitesun/night scanner light/406MHz DF (Becker)/Weather Radar/TracPlus/DZM/
Westpac Waikato Air Ambulance (Philips Search and Rescue Trust)	Hamilton	Bell 222B	1	Nitesun
Westpac Waikato Air Ambulance (Philips Search and Rescue Trust)	Hamilton/Taupō	Mitsubishi MU2	1	DF/FLIR/search radar/NVG/Drop Rafts/HF radio/marine radio/sat phone/flysafe tracking
Westpac Waikato Air Ambulance (Philips Search and Rescue Trust)	Hamilton/Taupō	Piper Chieftan	1	DF/FLIR/search radar/NVG/Drop Rafts/HF radio/marine radio/sat phone/flysafe tracking
Trustpower TECT Rescue Helicopter (Philips Search and Rescue Trust)	Tauranga	AS350FX2 Squirrel	1	DF/Winch/Nitesun/Night Scanner Light/NVG
BayTrust Rescue Helicopter (Philips Search and Rescue Trust)	Rotorua	AS350BA Squirrel	1	NVG/FLIR/DF/Winch
Youthtown Trust Rescue Helicopter (Philips Search and Rescue Trust)	Taupō	AS350B2 Squirrel	1	NVG/FLIR/DF/Winch
Helicopter Service Bay of Plenty	Taupō	AS350B2 Squirrel	1	NVG/FLIR/DF/Winch
Square Trust Rescue Helicopter (Philips Search and Rescue Trust)	Palmerston North	AS350 Squirrel	1	NVG/Winnch/Nitesun/DF/night scanner light/spidertracks/water rescue strop & line

Organisation	Location	Type	Qty	Special Equipment
Taranaki Rescue Helicopter Trust	New Plymouth	Augusta Westland A109 Twin	1	Winch/DZM flight following/406 DF/Nitesun/ night scanner light/Floats/1450kg hook/ Trakka searchlight
Eastland Helicopter Rescue Trust	Gisborne	AS350BA Squirrel	1	Nitesun/Night scanner light/water rescue strop
Hawke's Bay Helicopter Rescue Trust	Hastings	BK117B2 Kawasaki	1	NVG/Winch/Nitesun/Night Scanner light/FLIR/DZM Tracking/DF
Hawke's Bay Helicopter Rescue Trust	Hastings	Piper Navajo	1	DF/liferaft/NVG
Hawke's Bay Helicopter Rescue Trust		AS350BA Squirrel	1	NVG/FLIR/DF/Winch
Hawke's Bay Helicopter Rescue Trust	Hastings	Cessna 421C	1	Liferaft/NVG
Central Region Emergency Services Trust	Palmerston North	BK117B2 Kawasaki	2	NVG/600lb and 450lb Winch/Nitesun/night scanner light/406MHz DF (Becker)/Weather Radar/TracPlus/DZM/
The Life Flight Trust	Wellington	BK117B2 Kawasaki	1	FLIR/DF/NVG/Nitesun
Summit Rescue Helicopter	Nelson	AS350 Squirrel	1	NVG/Winch/406 MHz DF/Nitesun/Night Scanner light
Solid Energy Rescue Helicopter	Greymouth	AS350 Squirrel	1	NVG/Winch/406 MHz DF/Nitesun/Night Scanner light
Canterbury Westcoast Air Rescue Trust	Christchurch	BK117B2 Kawasaki	1	NVG/Winch/Nitesun/406MHz DF/Night Scanner Light
Canterbury Westcoast Air Rescue Trust	Christchurch	AS 350 Squirrel	1	NVG/Winch/Nitesun/406MHz DF/Night Scanner Light
Lakes District Air Rescue Trust (Heliworks, The Helicopter Line and Glacier Southern Lakes Helicopters)	Queenstown	AS350 Squirrel	6	Trackplus/DF/NVG
Lakes District Air Rescue Trust (Southwest Helicopters and Southern Lakes Helicopters)	Te Anau	AS350 Squirrel	3	NVG/Winch/DF/
Otago Rescue Helicopter Trust	Dunedin	BK117B2 Kawasaki	2	NVG/DF/Winch/Nitesun/night scanner light/Trackplus
The Helicopter Line – support of the DOC ACR team at Aoraki/Mt Cook	Aoraki/Mt Cook	AS350 Squirrel	3	Winch/Long Line

Annex D Major Land Assets

Organisation	Asset	Qty	Comment
New Zealand Police	4WD Vehicles	150	
Surf Life Saving New Zealand	ATVs	109	
Department of Conservation	Alpine rescue equipment	1	Alpine rescue team based at Aoraki/Mt Cook
LandSAR – Alpine and Cliff Rescue Teams	Alpine rescue equipment	1	There is 1 dedicated LandSAR ACR group – RARO (Ruapehu Alpine Rescue Organisation)
	Alpine rescue equipment	6	There are 6 LandSAR groups that maintain ACR teams as part of their groups
LandSAR – Cave SAR Teams	Subterranean rescue equipment	9	LandSAR has a national cave SAR group, with members located at 9 places throughout NZ
SARINZ	Alpine rescue equipment	Qty	
Antarctica NZ	Alpine, crevasse, ice, sea ice and cold weather rescue equipment	Qty	