

Search and Rescue in New Zealand



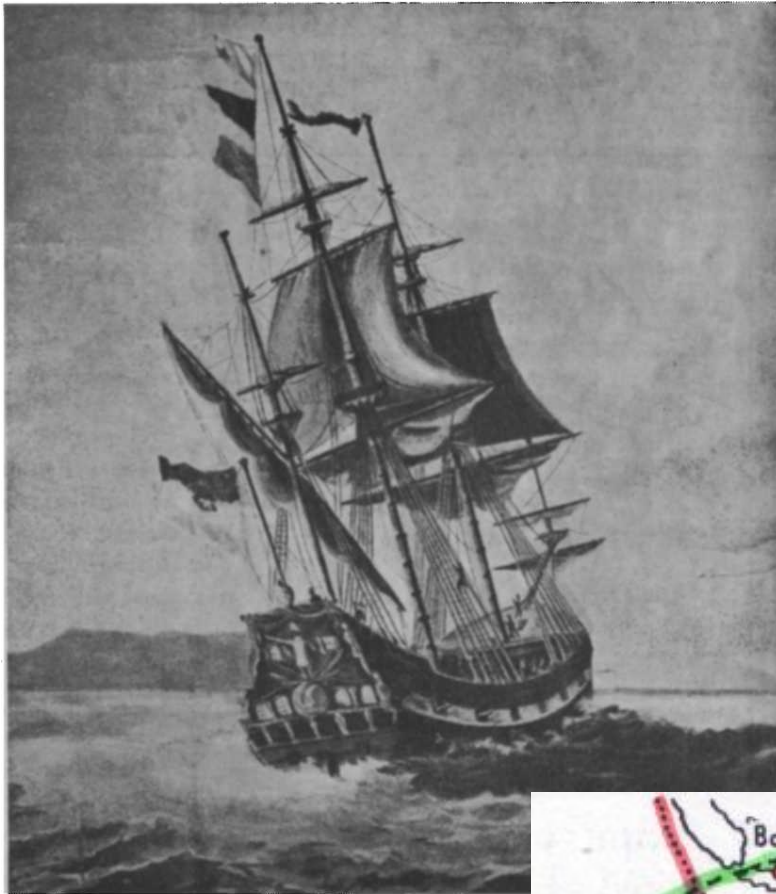
Department of Conservation
Te Papa Atawhai



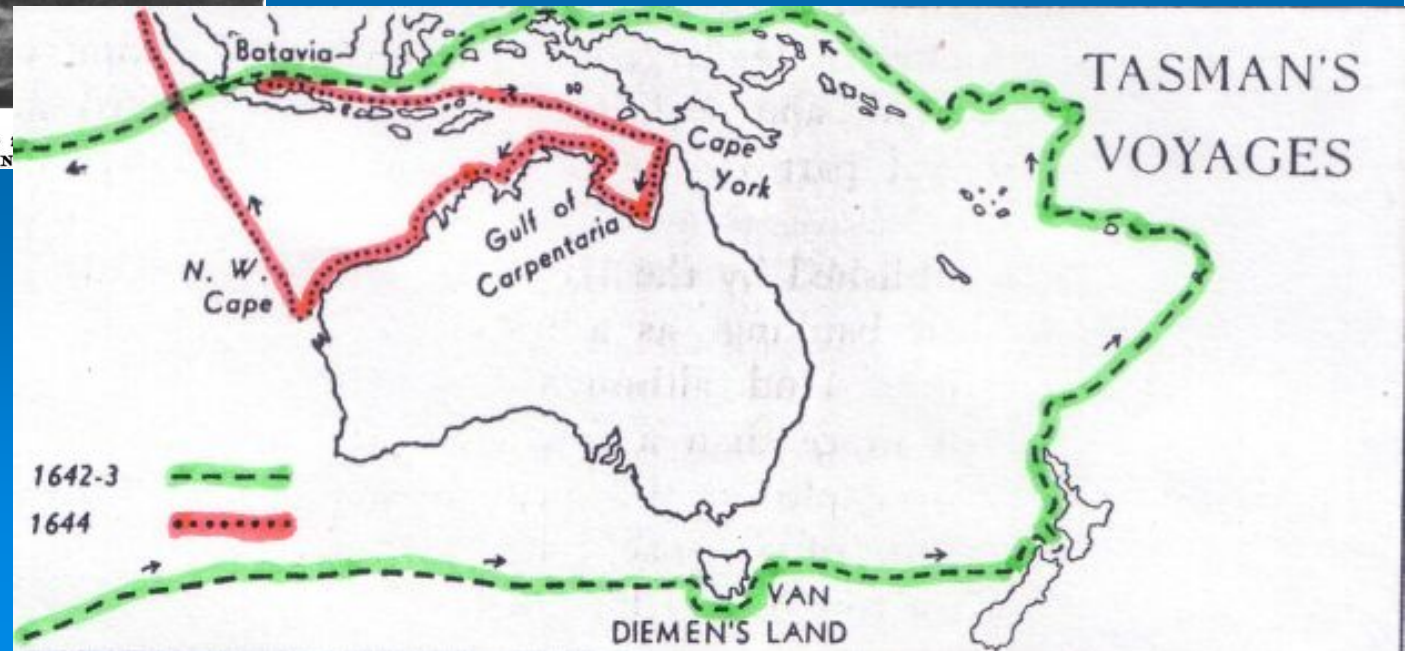


Please treat this image with respect





(From a
Abel Tasman's "Heemskirk," off the Three Kings, N





New Zealand today

Population

4,290,347 (July 2011 est.)

Urbanization

urban population: 86% of total population (2010)

rate of urbanization: 0.9% annual rate of change (2010-15 est.)

Ethnic groups

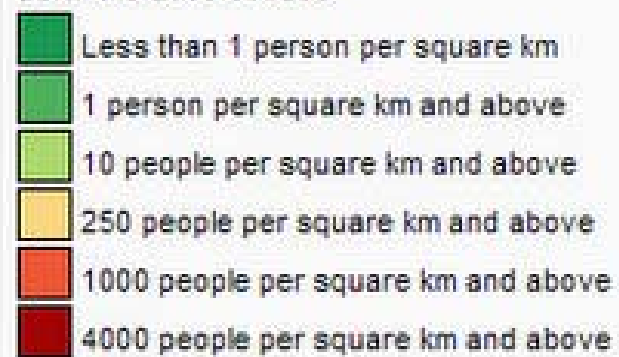
European 56.8%, Asian 8%, Maori 7.4%, Pacific islander 4.6%, mixed 9.7%, other 13.5% (2006 Census)

Languages

English (official) 91.2%, Maori (official) 3.9%, Samoan 2.1%, French 1.3%, Hindi 1.1%, Yue 1.1%, Northern Chinese 1%, other 12.9%, New Zealand Sign Language (official)



Map of New Zealand's population density as of the 2006 census



New Zealand: North Island

Northland Forest
Park, Waipoua

Auckland

Coromandel
Forest Park

Otorohanga Kiwi House &
Waitomo Glowworm Caves

Taranaki / Mount
Egmont NP

Tongariro NP

Waikaremoana
Te Urewera
NP

Queen Charlotte Track
Nydia Track
Abel Tasman
NP

Tararua Wind Farm

Wellington
Putangiura Pinnacles







New Zealand: South Island





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New Zealand Search and Rescue Linkages

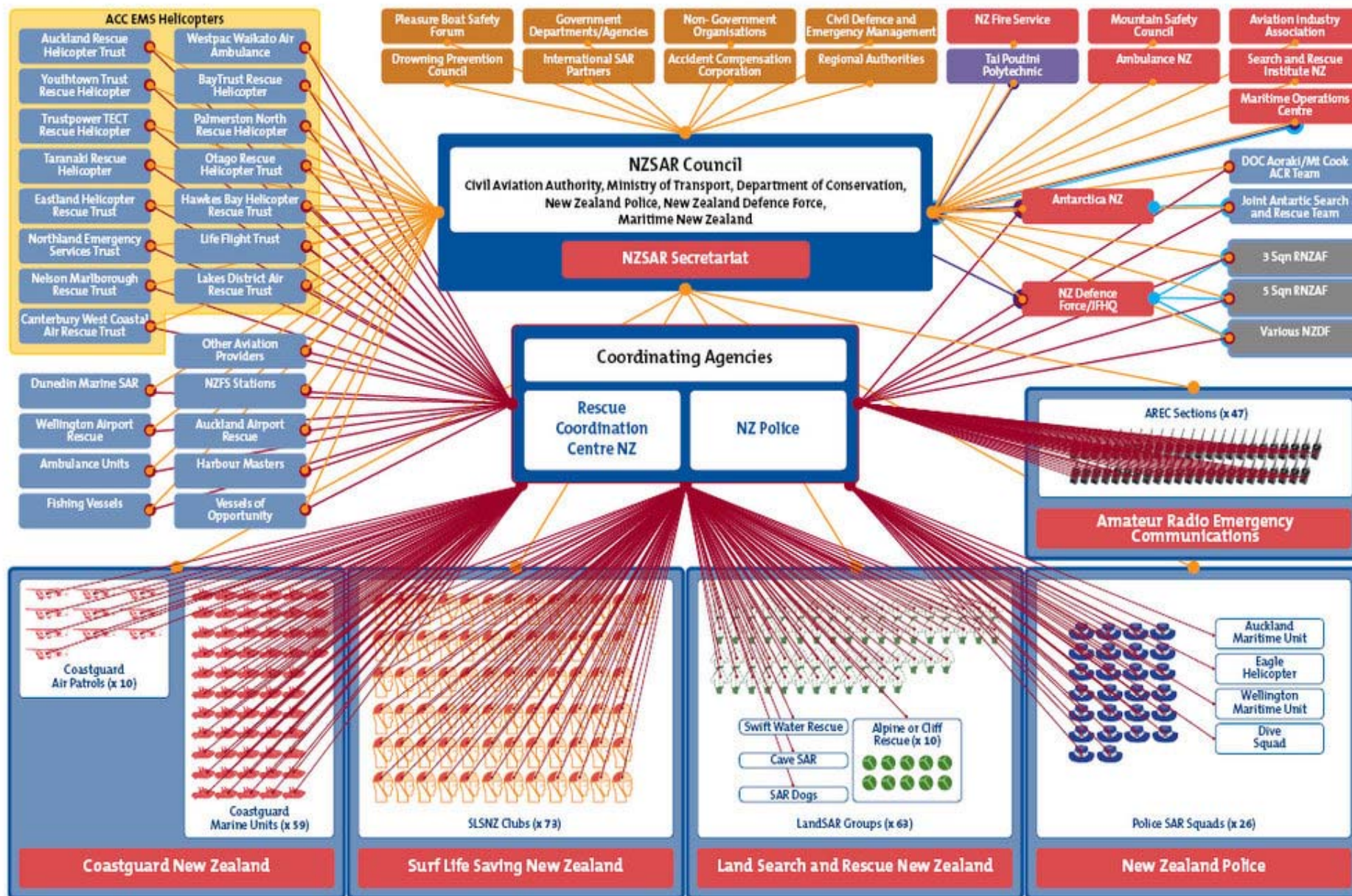
SLA Partner

NZSAR
Consultative
Committee

SAR Asset(s)

Prevention Information
Integral

Operational
Collegial



- **In New Zealand two co-ordinating authorities to initiate a SAR operation:**
- **New Zealand Police (land and close to shore),**
- **RCCNZ (Rescue Co-ordination Centre New Zealand) under maritime New Zealand are responsible for emergency locator beacons**

Aoraki/Mt Cook Search & Rescue



A photograph of a snow-covered mountain peak, likely Mount Cook, under a clear blue sky. In the foreground, a red wooden hut with a corrugated metal roof sits on a snowy slope. The mountain's rugged, rocky peaks are partially covered in snow, and the overall scene is a high-altitude alpine environment.

Home of New Zealand's highest
peak Aoraki/Mount Cook
3754m.

70,728 hectares in area.

25 summits over 3000m.

18 mountain huts,
with 8,000 bed nights each
season.

- **Aoraki/Mount Cook National Park is a magnet within Australasia for high alpine climbing**
- **attracts both international and New Zealand climbers.**
- **except for the low elevation (Aoraki Mount Cook is only 3754m) This region of the Southern Alps has all the characteristics of major mountain ranges around the world e.g. the Himalayas.**



First recorded climbing deaths in the area – 1914.

Approximately 226 deaths in the park.

Approximately 3-5 fatalities per year.

64 people in the park that are still missing or unrecovered.



On average there are 15-25 incidents that require SAR assistance each year.

Majority are alpine related.

Nature of terrain means a majority of the time it's either minor or major.

Mainly occur in the summer season – Oct/March.



SAR at Aoraki/Mt Cook

- SAR is a Police responsibility.
- However Police recognized that team needed to be based in village because of the:
 - High number of incidents in area.
 - The quick response time needed.
 - High and specialist skill level needed.
 - The Police don't have the skill levels and numbers to undertake alpine rescue.





Team Composition

- **Four full time staff as SAR team members.**
- **Four summer mountaineers over peak period.**
- **Positions are not 100% SAR work.**
- **Approx 50% SAR (training/operations)& 50% other DOC work.**

Nature of Today's Jobs



- Only involve 3-4 rescuers.
- Typically only last 3-5 hours
- Usually involve helicopters.
- Tend to sit out weather.
- Little or no media attention. Job is usually done by the time they arrive.
- Not often do we do a multi-day stretcher carry.

Training is varied





Crevasse Rescue



Slope Lowers





Avalanche Training



Currency

Heli Training





- **Rescue work in this kind of terrain is very demanding requiring specialist skills and also a quick response is essential in order to save lives.**

Methods of alert:

- SAR staff are alerted by various means:
- cell phone call direct to an Aoraki DOC number e.g. the Visitor Centre,
- cell phone call via the 111 system to the Police or Ambulance,
- from the climbers intention card e.g. overdue or concerns as not contacted on radio schedule for several nights,
- climbers signal a passing aircraft,
- a radio call from a mountain hut by members of the injured climbing party or
- another climbing party who have observed an accident,
- activated by RCCNZ following activation of an emergency locator beacon.

Note

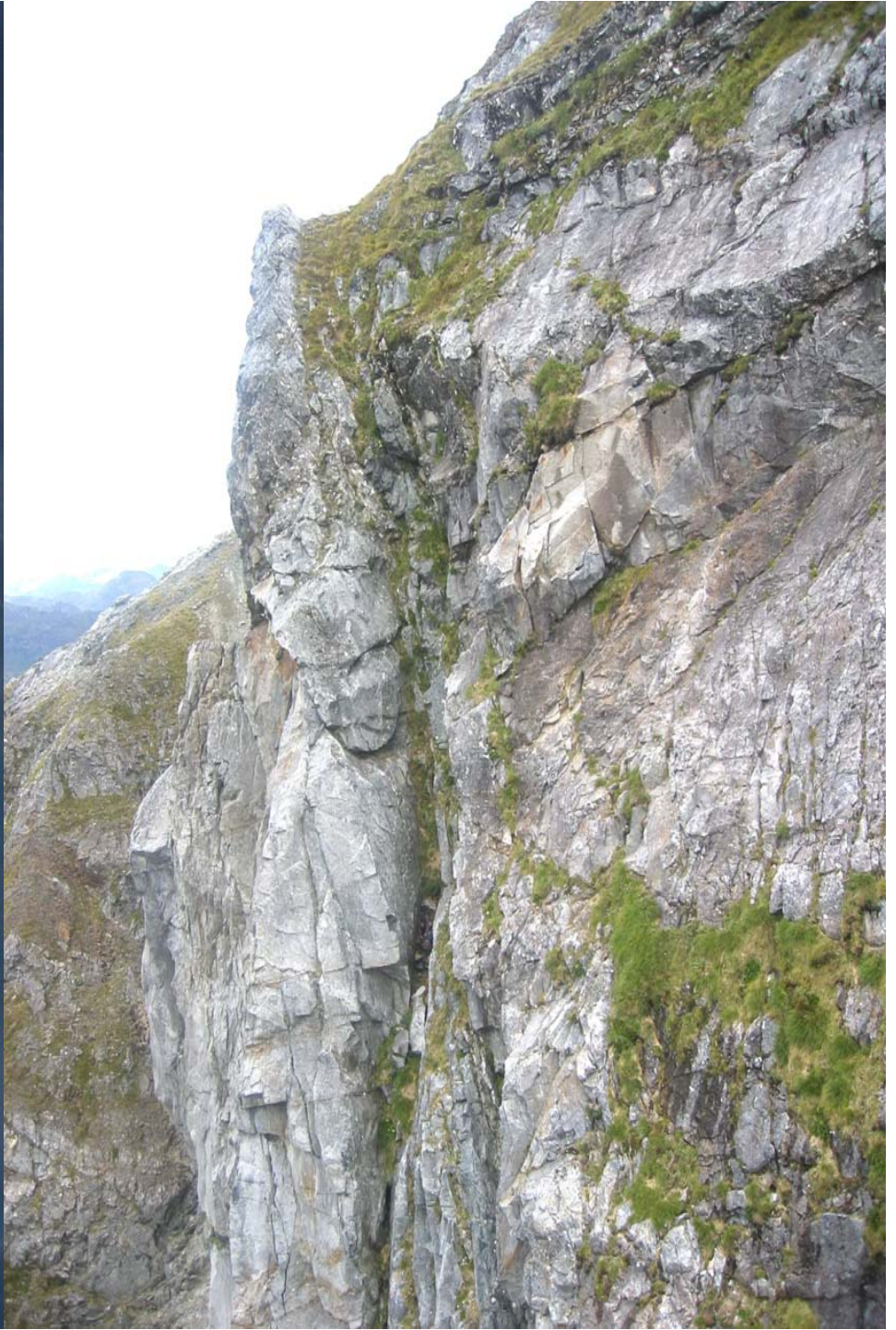
- very often little information immediately available.
- At best if an accident:
 - location,
 - number of patients
 - condition,
 - weather conditions on site,
 - terrain issues may be known for access by helicopter





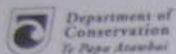






- For a rescue (known location/known patient/s) the most important information
- once the rescue team is on site-
the patient/s condition to enable the
activation of advanced paramedic backup
e.g. from the Westpac Helicopter





Notice of Intentions
Plan • Prepare • Equip!
Your safety is your responsibility

Sched Sheet
In ☐ Out ☐

07590

Intentions: Where are you going & staying? Sefton Riv

Party Name: (Surname for radio contact) Echart

Mobile Phone: 0220665611

Office use only	YOUR DETAILS		
	First Name	Surname	Nationality
	<u>Marlene</u>	<u>Moritz</u>	<u>German</u>
	<u>Uwe</u>	<u>Echart</u>	<u>German</u>

EMERGENCY CONTACT DETAILS	
Physical Address	Phone
<u>Gabriel Schabarak / Nelson</u>	<u>0226740216</u>

TRIP DATES	
Start	Due Out
<u>10/5</u>	<u>11/5</u>

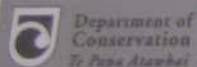
Car Make & Registration no: UE8102 Toyota Previa
Car left at: White Horse Hill CG
Locator beacon: YES / NO
Avalanche transceiver: YES / NO
Bags stored locally - where?

OFFICE USE ONLY - PRE-PAID HUT FEES

Cash ☐
Eftpos ☐
Credit Card ☐

Cheque ☐
Hut Tickets ☐
Hut Pass ☐

Date
Total
Initial



RETURN SLIP - TAKE THIS WITH YOU

IMPORTANT: Please sign out on your return and drop this slip back at the Aoraki/Mt Cook Visitor Centre
Searches are expensive and you may be asked to pay

07590

IN AN EMERGENCY DIAL 111 AND ASK FOR POLICE

Party Name:

In Hut: ☐

Paid:

Camping: ☐

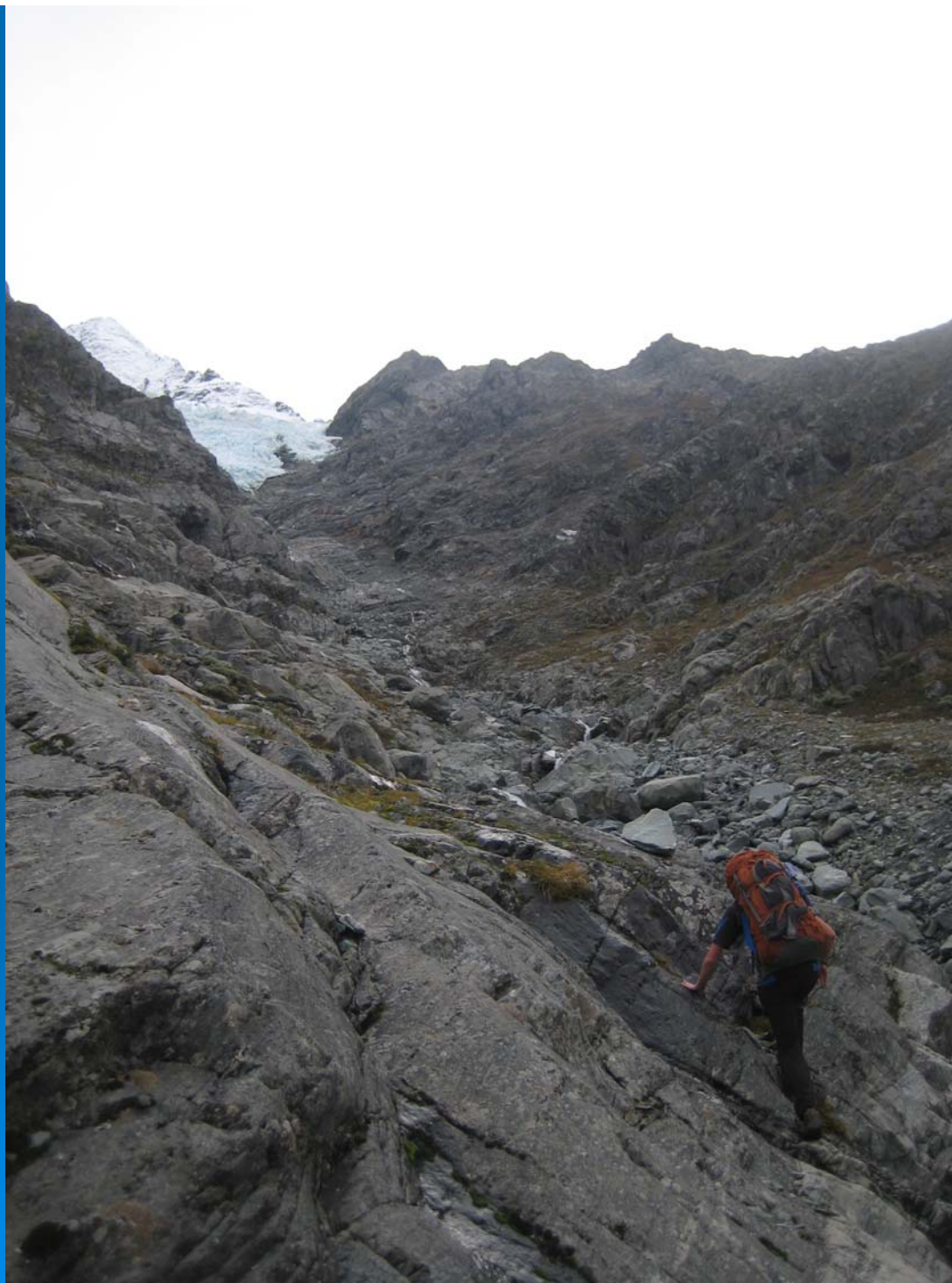
Signature:

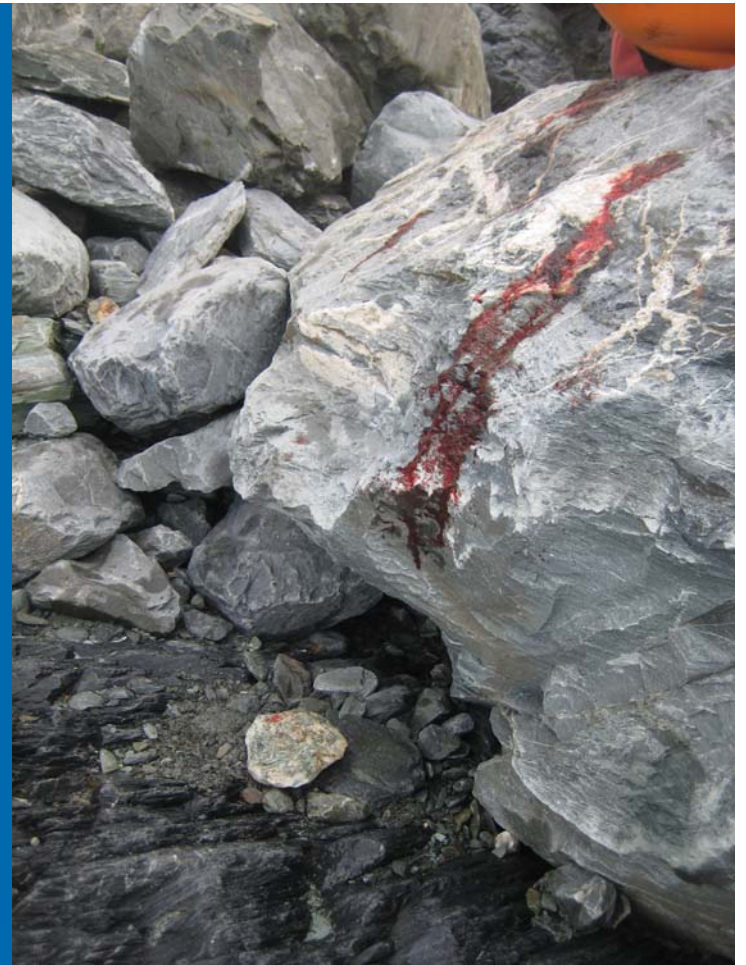
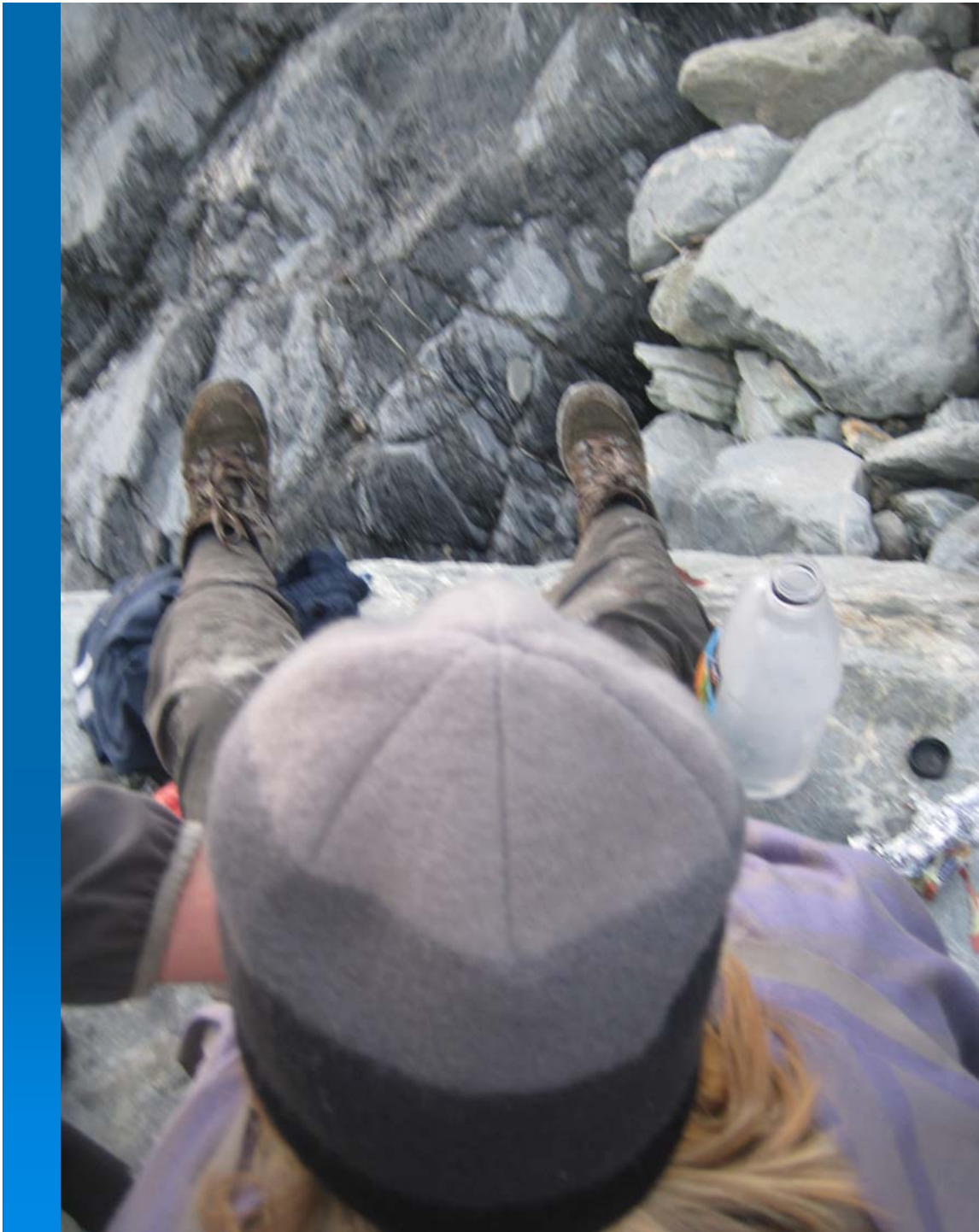
Date:

Department of Conservation
Email: mtcookvc@doc.govt.nz
Aoraki/Mt Cook Visitor Centre
Ph: (03) 435 1186 Fax: (03) 435 1080

Please write any comments regarding your trip on reverse side. Also details for After Hours hut fees payment.







Location Sefton Brg Route - River bed on L/Hand side, 1/2 way to Brg.

What has happened Fall/Slip with possible injury To left ankle. - Possible fracture

Insured Party Marlene Montz

Incident Reported To VC :- [REDACTED]

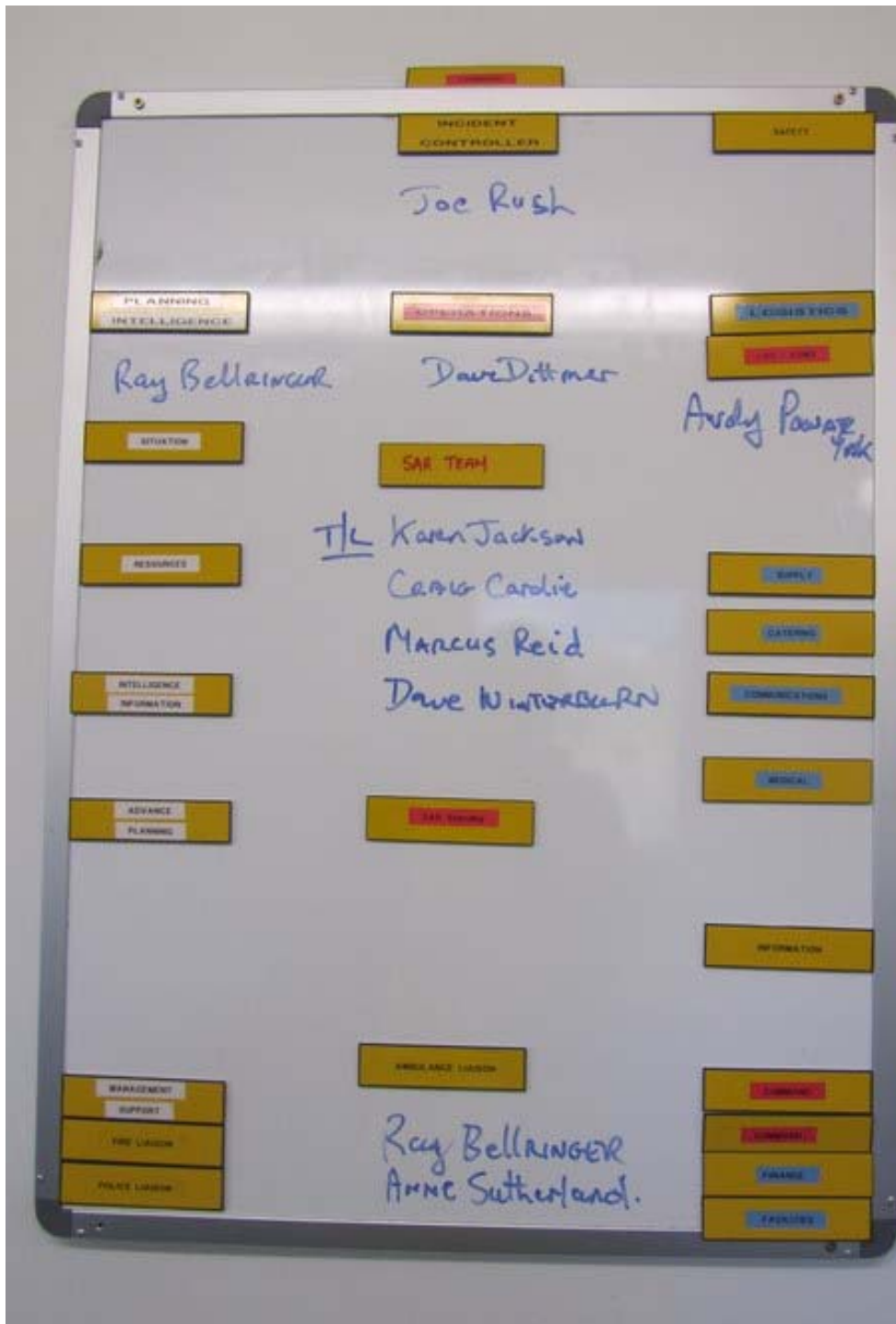
Weather - Fine, clear visibility - Calm conditions.



What happens at the ES Operations Room

- Key Incident management positions are filled using the CIMS structure
- Incident Controller
- Operations Manager
- Planning/Intelligence Manager
- Logistics Manager
- Log scribe

Positions filled based on principle of “best person for the job”



Rescue Plan

① IF party is on lower part of Sefton Road

①A ← Secure party & stretcher to Machine → If Team Leaders

①B — L → Hoist Load.

② IF STROP Rescue is Required — RQ NOT STROP CAPABLE.

③ L → 13:45 → Investigating site, may need to do STROP Rescue
Westpac on Route to Mt. Cook

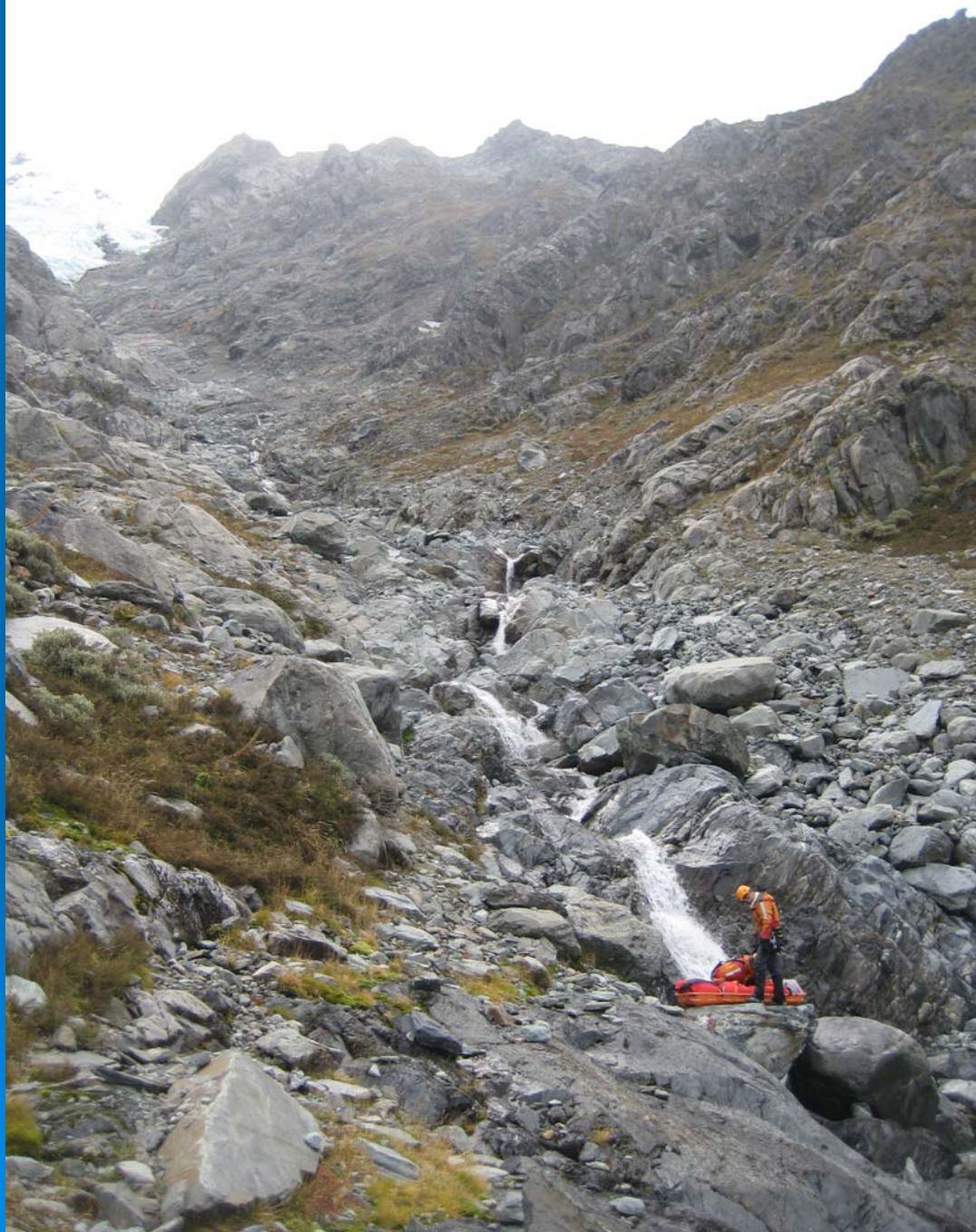




























Nara/Ikenouchi SAR

- *Duty Officer contacts all the huts each night and keeps track of climbers.*
- *Duty Officer had a 'gut feeling' about the climbers even though they were not overdue.*

0900 - 1/12/08

2. SEARCH URGENCY CHART

- Remember the lower the number the more urgent the response
- Use two or more people to independently fill out the search urgency

SUBJECT PROFILE	Rating	Totals
Number of subjects		
1 Person	1	
2 People	2	
3 or more	3	
Age		
Very young	1	
Very old	1	
Other	2-4	
Medical Condition		
Known illness or injury requiring medical attention	1	
Potential vision impairment	1	
Suspected injured or ill or mental problem	2	
Healthy	3	
Known fatality	4	
Physical Condition		
Unfit	1	
Fit	2	
Very Fit	3	
CLOTHING PROFILE		
Inadequate or insufficient	1	
Adequate	2	
Very Good	3	
EQUIPMENT PROFILE		
Inadequate for weather, environment and activity	1	
Questionable	2	
Adequate	3	
Very Good	4	
EXPERIENCE PROFILE		
Not experienced, does not know area	1	
Not experienced, know area	2	
Experienced, not familiar with area	3	
Experienced, knows area	4	
WEATHER PROFILE		
Past and/or existing hazardous weather	1	
Predicted hazardous weather (8 hrs. or less)	2	
Predicted hazardous weather, (more than 8 hrs.)	3	
No hazardous weather predicted	4	
TERRAIN HAZARDS PROFILE		
Known hazards	1	
Difficult terrain	2	
Few hazards	3	
Easy terrain no known hazards	4	
TOTAL		17

If any of the categories are rated 1, regardless of the total, the search may require immediate response.

9-17
URGENT RESPONSE

18-27
MEASURED RESPONSE

28-33
EVALUATE & INVESTIGATE



Gear List - from Kiyoshi's pack.

Rope 9.5 50m x 1

Sings 1 11mm x 240cm
6 7mm x ~~160~~ cm
1 7mm x 120cm

Sling autobrake x 2

Carabin Karabiner x 16

locking Karabiner x 4 each

Ropeman ascender x 1

Friends x 5 sizes 1 to 3

Ice Screw 4 x 16mm

2 x 20cm

Snow Picket 2 x 58cm
2 x 50cm

Gear Rack x 1

Backpac 1 x 60 l

Helmet x 1

Ice Pick x 1

Bail?

Crampons x 1

Boots x 1

Carotors x 1

Harness x 1

Salopette x 1

Rain Jacket x 1

Neck warmer x 1

Inner gloves x 1

Over gloves x 1

over jacket x 1

over pants x 1

inner jackets x 1

socks x 2

inner pants x 1

underwear

down jacket x 1

Fleece x 1

Single person mat x 1

Tent

Tent fly

sleeping bag

1 -

cover

Options:

- ① Hover & drop off two rescuers.
Rest to staging area.
Then stop up with one - back w patient
Then stop up with one - back w 2nd patient
Stop up empty - back with 2 rescuers

~~st~~ -

- ② Straight stop - 2 people up.
Prep patients
As above.

- ③ BK - Winch 2 people down.
Prep patients
As above.
- Stage to Gardner Hot.

BK vs Stop-

- ① Southcom - ask BK. - ~~500~~ Carl.
Cellphone if duty pilot to talk to Dave W.
- ② Wanaka SAR - Clinton
Bryan/Dave to brief them.
- ③ Japanese Interpreters - Mae talk to Denis.
Brief them on site - Shulen -

②

Teams: 2 of 4
 2 on drop
 2 at staging area on medical | Set up good working platf
 2 Helo's

If go on drop bag flight, try and determine a safe LZ

Needs right resources in right places.
 Needs management done well.

Discussion on medical care.
 Adv. paramed. can't do any more for frostbite + hypothermia than most people.

Plan:

Need to be here @ 0500 3/12/08.

1 Team x 4 → drop bag + drop
 1 Team x 3 → set up LZ
 + 2 Machines.

Team 4 RN + drop/strop

Land

If drop bags 2+ drop

If strop team 3 → LZ - prep + strop in
 Strop occurs -

311

Team + drop bags

Dave, Timmy, ~~Karen~~, Marcus - 2 @ LZ - Karen
 Drop bags. start prep Marcus

Team + strop

Hobbie, Richie, ~~Karen~~ @ LZ - stand prep.

LZ - Karen, Dave, Richie, Jane.

Strop - Timmy, Hobbie(rz) + Marcus if need

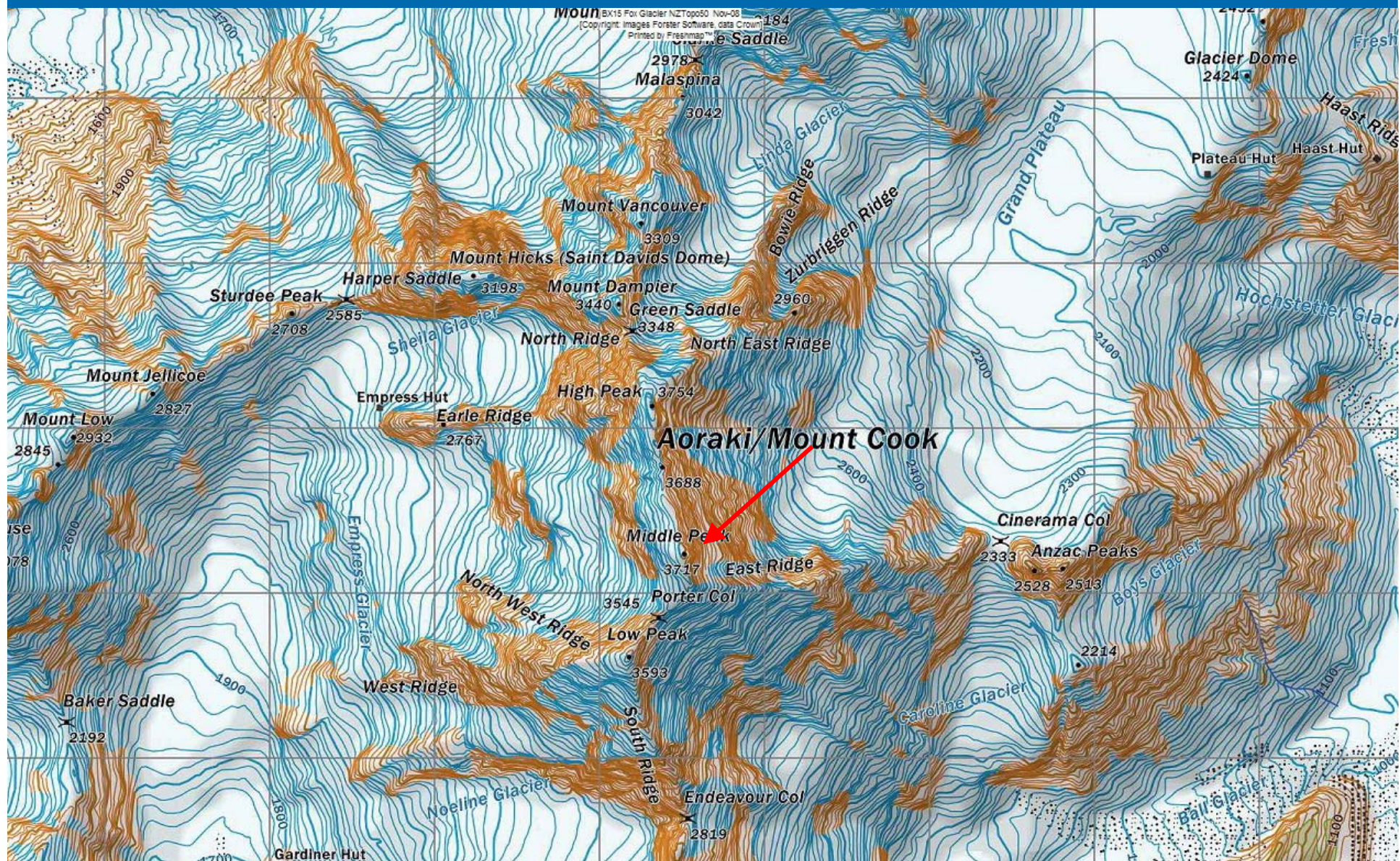
③

RUN

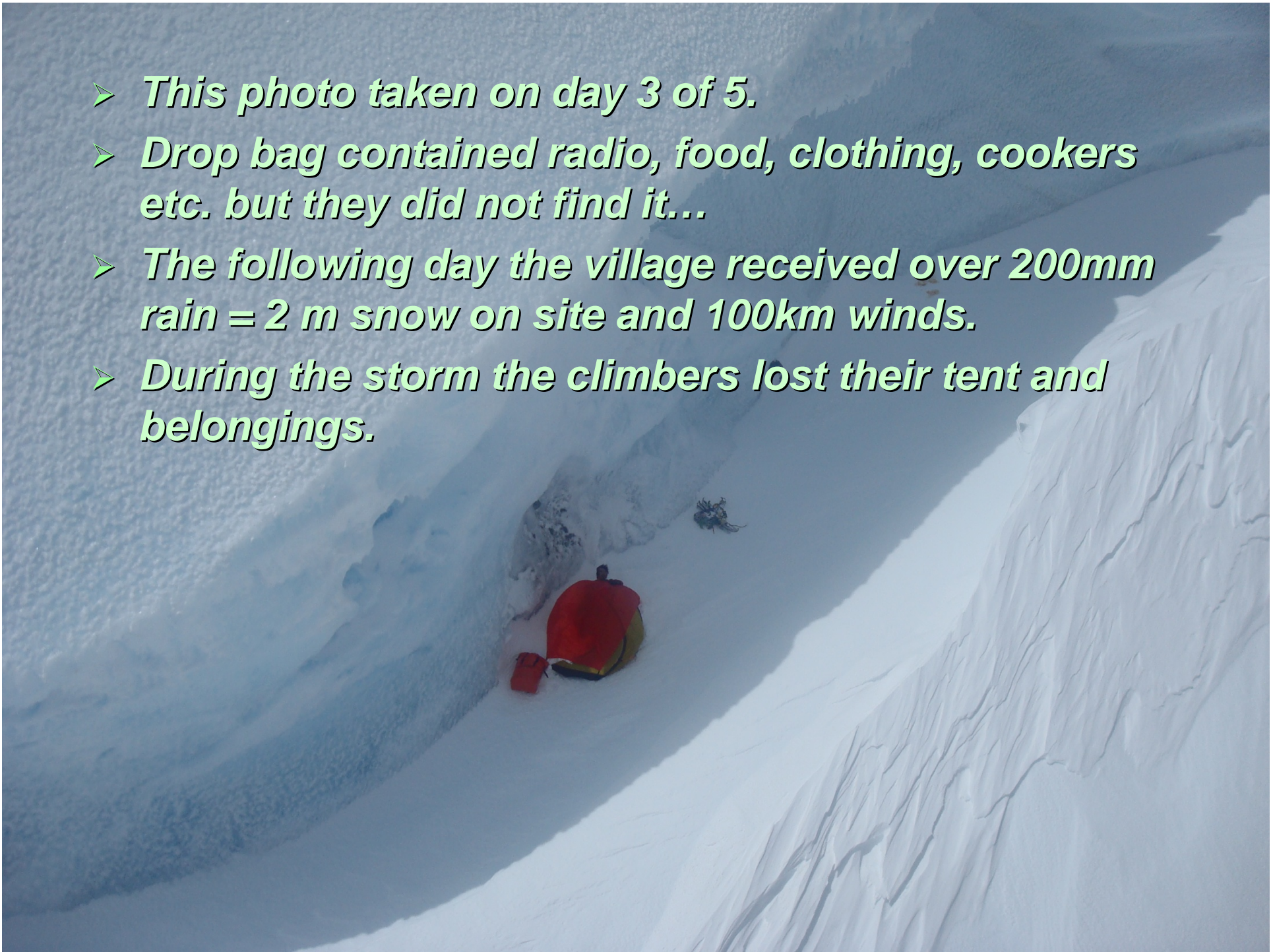
NZLSAR TEAM TASKING

DATE TIME GROUP		INCIDENT NAME		TEAM NAME		TEAM CALL SIGN	
				DAVE		DAVE	
RESOURCE	GROUND TEAM	D	TCA	HELO	OTHER		
		O GS					
TYPE							
TEAM LEADER		DAVE WINTERDURN					
Team Members		RICHARD CATNES, KIRBY JACKSON					
Map/s Used H36		NZMS 260				Date	
Assignment: SEARCH PLS CHECK AREA A - B2 on Route - B1 SEARCH DETAIL							
Decision Points for Team:							
Hazards:							





- *This photo taken on day 3 of 5.*
- *Drop bag contained radio, food, clothing, cookers etc. but they did not find it...*
- *The following day the village received over 200mm rain = 2 m snow on site and 100km winds.*
- *During the storm the climbers lost their tent and belongings.*





- Temperature at time of rescue was -21°C
- Nara used a ballpoint pen and helmet to dig hole.
- Hideaki Nara escaped with just minor frostbite.
- Kiyoshi Ikenouchi died just hours before Nara was rescued
- SAR team returned about 10 mins later to rescue Kiyoshi.











































Today...

SAR is funded by DOC, and/by working agreement with the NZ Police - to provide an Alpine SAR service to the Aoraki/Mount Cook National Park



- ***Police pay for SAR 'Operational Costs'- helicopters, food, lost gear.***
- ***DOC pay for wages (training and Ops) and equipment.***
- ***Cost DOC approx \$150,000 a year***