

# SOUTHERN HEMISPHERE ALPINE CONFERENCE 2017

Helping to shape the future of alpine snow safety



#MakeItHomeNZ

## Saturday 17th June



Time	Event	Facilitator	Room	
07.30 - 08.45	Registration		Foyer	
09.00 - 09.15	Welcome & Setting The Scene	<b>Mike Daisley</b> <i>MSC Chief Executive</i>	Main	
09.15 - 10.30	<b>Evolution, Adaptability and Alpinism</b>	<b>Roger Atkins</b> <i>Canadian Avalanche Specialist and Ski Guide</i> Through evolution, species gradually develop traits that favor survival in their natural environment. The alpine is not our natural environment, but adaptability to different environments is a product of human evolution. Our ability to adapt is partly due to our capability to learn, to reason and to create technology and systems that allow us to function in harsh environments. On a deeper level, we also adapt by developing non-conscious behaviors that automatically affect our perceptions and responses to what we encounter. The most competent guides, outdoor specialists and alpinists are "non-consciously competent" - they rapidly and non-consciously make good decisions with minimal analysis.  This presentation focuses on non-conscious behaviors and ways of communicating that automatically support good decisions. Avalanche Character, Strategic Mind-Set, and the Conceptual Model for Avalanche Hazard Assessment are concepts and methods intended to help us be primed to non-consciously make good decisions. This presentation and related workshop will explore these concepts and their origins, how they have affected avalanche work and recreation, how they have been implemented in avalanche bulletins and guiding operations in North America, and how they might apply to different alpine activities internationally.	Main	
10.30 - 11.00	Morning Tea and Alpine Exhibition			
Presentations	11.00 - 11.30	<b>Alpine Insights from Department of Conservation</b>	<b>Merv English</b> <i>Deputy Director General; Strategy and People, Department of Conservation</i>	Main
	11.30 - 12.00	<b>Alpine Ascents; Launch of New Industry Qualifications</b>	<b>Matt Cowie</b> <i>Industry Development Advisor, Snowsports, Skills Active</i> Skills Active have been working with industry to develop a number of new qualifications that sit on the NZ Qualifications Framework. Following a comprehensive development and consultation process we are excited to be able to launch the new NZ Certificates in Outdoor Leadership (Alpine), Snowschool Instruction and Avalanche Risk Management during this session.	Main
	12.00 - 12.30	<b>Adventure Activities Regulations – Update and Open Forum</b>	<b>Aiden Tansell</b> <i>Senior Adviser, WorkSafe Operations and Specialist Services</i> The newly updated Safety Audit Standard for Adventure Activities holds clues for how mountain work can be managed in light of the 2015 Health and Safety at Work Act. Aidan will outline developments in the Standard and progress in the regulated sector, followed by open forum time to discuss how this fits for your operations. Questions can be emailed in advance via MSC.	Main
12.30 - 13.30	Lunch and Alpine Exhibition			
Workshops 1	13.30 - 15.00	<b>Avalanche Problems and Their Evolution</b>	<b>Roger Atkins</b> <i>Canadian Avalanche Specialist and Ski Guide</i> A close look at avalanche problems and their evolution, including how to prioritise and integrate them into avalanche forecasting and field decision-making for professionals and recreationists.	TBC
		<b>What Do We Do Once We've Dug Them Out? The 2016 ICAR Avalanche Algorithm Made Simple</b>	<b>Hilary Cave - Horizons Unlimited</b> <b>Dr Malin Zachau - Pre-Hospital Care and Wilderness Medicine</b> This workshop aims to empower participants in the practical application of the ICAR Avalanche Algorithm, and will include realistic scenarios relevant to the New Zealand snowpack, medical response and facilities.	TBC/ Outside
		<b>Decision Making on the Fly</b>	<b>Mark Sedon</b> <i>Chief Guide, Harris Mountain Heliski</i> Mark will share some of his scientific and not-so-scientific methods and approach to checking alpine hazards on the fly. Quick tests, observations and terrain spacial awareness are all part of the equation...	TBC
15.00 - 15.30	Afternoon Tea and Alpine Exhibition			

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Select one workshop slot

### Workshops 2

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15.30 - 16.00	Development of Backcountry Avalanche Accidents in Austria	<b>Peter Holler</b> <i>Department of Natural Hazards, Innsbruck, Austria</i> Over 2000 people have been killed by avalanches in Austria in the last 70 years: approximately 30 fatalities per year. Over time these fatalities have shifted from catastrophic avalanches to a predominance of backcountry accidents concentrated in a few critical periods per winter; often over just a few days. This presentation explores these trends, the characteristics of off-piste and backcountry fatalities, and the need for targeted avalanche education.	TBC
	Red or Green... to Ski or Not to Ski?	<b>Mark Sedon</b> <i>Chief Guide, Harris Mountain Heliski</i> Mark explores the great debate on run coding from our remote valleys to our mountain ranges. Mark will show the Harris Mountain's system; from it's paper based conception to the new live versions currently being tested. Does green really mean safe? A discussion on the various systems in use in New Zealand.	TBC
	Mapping The Legal Terrain	<b>Aiden Tansell</b> <i>Senior Adviser, WorkSafe Operations and Specialist Services</i> The law sometimes feels like a big cornice overhead in the mist- threatening to crash down on you, but unknown and mostly obscured. This session will sketch out the lay of the land so that you can be aware of which slopes are prone to the legal version of wind-loading. Then we'll show how you can drill down to the detailed 'topo-map' contours and features of the legal landscape when you need to know more.	TBC

Select one workshop slot

### Workshops 3

16.10 - 16.40	A View From Above - Seasonal snow In New Zealand's southern South Island	<b>Todd Redpath</b> <i>PhD Student, School of Surveying/Department of Geography, University of Otago</i> Todd will demonstrate the data available at both large and fine scales from satellite and drone measurements, and explore new insights into seasonal snow processes.	TBC
	Talk To Me Baby	<b>Peter Bilous</b> <i>Otago Polytechnic Avalanche Programme Manager and NZMGA Ski Guide</i> Understanding the anticipated dangers of the day, your group and the terrain you are traveling in are at the core of the decisions we make in the alpine. Effectively sharing these thoughts can be a powerful tool to better inform our judgment, detect possible flaws in our observations and decision-making, and to help mitigate the hazards we are exposed to. This presentation discusses the importance of good communication in an alpine sector context and beyond, what principles underpin effective communication, and how to enhance your abilities to do so.	TBC
	The International Commission for Alpine Rescue – What it is and why it is important to New Zealand?	<b>Tarn Pilkington</b> <i>IFMGA, LandSAR NZ Backcountry Technical Rescue Advisory Group</i> An overview of the International Commission for Alpine Rescue and why New Zealand needs to stay involved.	

16.45 - 17.00	Insights from Day One	<b>Laura Adams</b> <i>SHAC Convener</i>	Main
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19.00 - Late	The Alpine Gala with Special Guest, Rob Suisted	Join conference delegates, presenters and our international guests for a social evening of fine food and fascinating stories. An opportunity to catch up with friends and share a laugh before scattering across NZ for another winter season. Rob Suisted, one of New Zealand's most respected nature photographers will be joining us to deliver a captivating presentation with stunning visual images. Rob's love of the outdoors and our wildlife has led him to a background in zoology, previously a career in conservation management (as NZ's national marine mammal advisor) and quality management systems. Along with extensive experience in New Zealand's remote back-country areas, Rob is a frequent visitor to the spectacular sub-Antarctic regions to the south. He has just finished his 16th book project, has over 30 postage stamps with his work, hundreds of calendars, a few NZ bank notes, and been involved with many of New Zealand's biggest visual projects. Rob has won some of NZ's most prestigious photography awards including the Best Portrait at the 2015 Canon Media Awards.	Rydgdes Latimer Square
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	Time	Event	Facilitator	Room
	07.30 - 08.30	InfoEx Subscribers Breakfast	<b>Nathan Watson - MSC Partnerships Manager</b> <b>Kevin Boekholt - NZAA and InfoEx Coordinator</b> For 2017 InfoEx subscribers; an overview of the season, the platform and new initiatives for the future.	Private Dining Room
	08.45 - 09.00	Day Two Overview & Announcements	<b>Laura Adams</b> SHAC Convener	Main
Presentations	09.00 - 09.30	Glacier Chasing	<b>Brian Anderson</b> <i>Glaciologist, Victoria University</i> Glaciers are retreating at rates that are unprecedented in the historic record, yet their response to climate warming is not always straightforward. Timelapse cameras and mathematical models can help answer questions such as - how much of the retreat in the last century is from human-induced climate change? Why did some of our glaciers advance when the world was warming, and what will happen to glaciers in the future?	Main
	09.30 - 10.00	Landscape Change and Geological Hazards in our Mountains	<b>Simon Cox</b> <i>Principal Scientist, GNS Science</i> Landscape evolution in the Southern Alps of New Zealand occurs at a rate that is second to none in the world. Plate tectonic motion thrusts rocks into a westerly atmospheric circulation, creating a barrier that generates intense orographic precipitation. Broken by faults and shaken by regular earthquakes, the rockmass is weak and prone to collapse and erosion that is exacerbated by the waxing and waning of glaciers and snowfields. The continual fight between rock uplift and gravity generates a surprising variety and ferocity of geological hazards. Dr Simon Cox has been mapping Southern Alps geology for three decades and will provide a geological perspective of rock avalanche assessment and mountain hazards.	Main
	10.00 - 10.30	The Cryosphere Under Climate Change	<b>Christian Zammit</b> <i>Hydrologist, National Institute of Water and Atmosphere</i> Dr. Christian Zammit is involved in the newly funded Deep South National Challenge-Impact and Implication programme - Frozen water project (2017-2019) that aims to better represent potential impact of climate change on frozen water across New Zealand. As part of this talk, Christian will present this new programme and the importance of adequate monitoring network as well as discussing initial assessments of IPCC5 driven climate change impact using the example of the Waitaki basin.	Main
	10.30 - 11.00	Morning Tea and Alpine Exhibition		
Workshop / Panel Discussion	11.00 - 12.30	Harnessing Human Nature	<b>Roger Atkins</b> <i>Canadian Avalanche Specialist and Ski Guide</i> Non-conscious behavior strongly influences decisions; how can we adapt our language and methods to automatically lead us (and others) to better choices? In this workshop, we will explore how subjective elements such as Avalanche Character and Strategic Mind-Set apply to alpine guiding and recreational practices.	TBC
		Influencing Behavior - Improving Alpine Safety using Contemporary Channels	<b>James Floyer - Avalanche Canada</b> <b>Don Bogie - Department of Conservation</b> <b>Brad Carpenter - NZ Avalanche Advisory Forecaster</b> <b>Nick Kingstone - MSC Communications Manager</b> The panel discusses the challenges and opportunities of communicating alpine danger and risk messaging, and explores contemporary tools and techniques such as multi-media products, social media channels, mapping, stakeholder collaborations and more.	TBC
	12.30 - 13.30	Lunch and Alpine Exhibition		
Workshops	13.30 - 14.15	NZ LandSAR Avalanche Dogs - the past, present and future	<b>Brent MacDonald</b> <i>Lead Assessor, Land SAR Search Dogs (Avalanche)</i> Brent outlines over twenty years as a dog handler in NZ. The origins of the organisation to the present day; its structure, affiliations, standards and dog training principles, and describes the significant milestones, lessons learned along the way and opportunities to maximise this resource.	TBC
		A Career in the Mountains	<b>Jane Morris</b> <i>President, NZ Mountain Guides Association</i> How to become an NZMGA qualified guide: an exploration of the pathways and the opportunities at the end of them.	TBC
		Mountain Weather	<b>Mads Naeraa-Spiers</b> <i>Severe Weather Forecaster, MetService</i> Useful weather guidance; where to find it and how to apply it.	TBC

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	Time	Event	Facilitator	Room
Case Studies and Insights	14.25 - 14.55	The Hazards of the Alpine Office	<b>Jane Morris</b> <i>IFMGA Mountain Guide</i> Personal insights into the exposures and risks of working in the mountains, and how this is changing over time.	Main
	15.00 - 15.30	Afternoon Tea and Alpine Exhibition		
	15.30 - 16.00	There and Back; insights from mountaineering activities in New Zealand	<b>Nathan Watson</b> <i>Partnerships Manager, Mountain Safety Council</i> Insights is a fundamental part of the Mountain Safety Council and provides the evidence base which drives prevention focused public messaging and targeted safety initiatives. In mid-2016 MSC completed its first comprehensive insights publication 'There and Back'. This project explored 5 major outdoor recreation activities; tramping, hunting, mountaineering, trail running and mountain biking and now represents New Zealand's most detailed understanding of both participation, and more importantly (from a prevention perspective) what is actually 'going wrong'. Combining never before accessed injury, SAR and fatality data There and Back represents a major milestone in our sectors collective understanding of public outdoor recreation safety.	Main
	16.00 - 16.15	SHAC Close	<b>Mike Daisley</b> <i>MSC Chief Executive</i>	Main