



# **RISK MANAGEMENT FOR OUTDOOR PROGRAMS**

**A Guide to Safety in Outdoor Education, Recreation and Adventure**

*2026 updated edition*

**Jeff A. Baierlein**

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A Guide to Safety in Outdoor Education, Recreation and Adventure


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**Jeff A. Baierlein**

Viristar LLC  
Seattle, Washington



**VIRISTAR.**

The background of the page is a light-colored topographic map with thin, grey contour lines. At the bottom of the page, there is a photograph of a mountain range with several peaks, rendered in a blue-tinted, hazy style that blends with the map's background.

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# DEDICATION

To those who have experienced serious illness, injury or other loss on an outdoor program,  
and to their family members and loved ones.

And to those who have worked to prevent such losses,  
and when they have occurred  
have responded to them  
with care, skill and commitment.

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# P R E F A C E

The ten-day backpacking trip through towering trees and past sparkling streams was supposed to be a highlight of the school year. For students who didn't do well in traditional schools, the outdoor-focused alternative school provided hands-on learning and wilderness adventure. Only things didn't go as planned.

The final night of the expedition, while the adult trip leaders were away, strangers wandered into camp. Students got into a fight; the campsite was destroyed, and frightened students scattered into the darkness. The next morning, at the bottom of a cliff, two students were found, dead.

If you were the manager of the outdoor program where this terrible tragedy occurred, how would you respond? Could you have prevented this? Is this just an example of the inherent risk of outdoor adventure? Or is it a sign that trip organizers failed to act appropriately? These are questions I was asked to address as an expert witness in a legal proceeding following the tragedy. It was one of the many incidents to which I have responded that helped propel the writing of this book, so that tragedies like this would happen never again.

This book emerged out of my more than 30 years as an outdoor professional, both field leader and administrator. My hope is to share guidance useful to outdoor program managers based on my experiences with multiple wilderness fatalities and lawsuits, and work with dozens of outdoor organizations on four continents.

In 2017 I was asked by my good friend and colleague John Lin (林政翰) to provide a risk management training for outdoor professionals in Taiwan. After the two-day course, John suggested to me, "You should write a book!" Here it is.

Interest in outdoor activities is growing around the world. Leaders of outdoor programs face pressures to minimize costs, but social tolerance for injury and other losses while outdoors is decreasing. How to balance these competing demands?

Standards, technologies, and activities are ever-changing. New outdoor organizations and program managers are emerging. Although most outdoor experiences end safely and successfully, preventable accidents still occur. What are the best practices for appropriately managing outdoor risks?

Happily, established safety standards, accreditation of outdoor organizations, and information-sharing are all on the rise, and provide responses to some of these questions. This book aims to add to that network of support for both new and experienced leaders of outdoor programs around the world.

Like many others, as a youth I found time outdoors with others to be among the most fulfilling and joyful experiences of my life. Outdoor experiences have an extraordinary power to offer fun, rejuvenation, self-awareness, and community. Well-facilitated experiences in nature can also inspire people to work towards environmental sustainability. And high-quality cooperative outdoor adventures can help people build strength of character and admirable human qualities, above all, compassion.

The vast majority of outdoor experiences are safe, positive and successful. The very best ignite caring for the beautiful blue-green planet that sustains us, and light a spark that leads towards a more compassionate world. If this book fosters more safe and successful outdoor experiences that lead to that better world, then it shall have succeeded.

Jeff A. Baierlein

Seattle, Washington USA

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Finally, a thank you to my parents, Ralph and Jean Baierlein, for their many years of encouragement and support.

Note: this book is written for the benefit of the outdoor community. Comments and suggestions are gratefully welcomed for the next edition. Feedback should be sent to: [publications@viristar.com](mailto:publications@viristar.com).

# DISCLAIMER

The information contained in this book is intended to support outdoor program administrators in appropriately managing risks in their outdoor programs.

However, not every hazard, risk, or management approach is covered in this text. Other or additional risk management measures may be necessary for appropriate management of outdoor risks.

Following recommendations in this book does not eliminate the possibility of injury, illness, property damage, death, or other loss.

Reasonable efforts have been made to ensure the accuracy and correctness of information provided, but the information may not be accurate or free of errors.

All reasonable attempts have been made to ensure that material in this book is current as of the date of publication. Information in this book, however, may not be up-to-date, as laws, standards, technologies and practices are ever-changing.

The material in this book is general in nature and may not be suitable for all contexts. The information in this book should be used as a guide only, and is not a substitute for the judgment of qualified persons in assessing and managing risks relevant to each unique situation.

The publisher, author, and those who have contributed to this publication, to the maximum extent permitted by law, disclaim all liability and responsibility for any direct or indirect loss, damage or liability which may be suffered or incurred by any person as a consequence of reliance upon anything contained in or omitted from this publication.

A woman with her hair in a braid, wearing a peach-colored t-shirt and sunglasses, is seen from behind, looking at a topographic map spread on a large rock. The map is open, and she is pointing at a specific location with her right hand. The setting is a high-altitude mountain landscape. In the foreground, there is a rocky path and a field of green grass with yellow and pink wildflowers. In the middle ground, a clear turquoise lake is visible, surrounded by rocky shores. The background features steep, rocky mountain slopes with patches of green vegetation and snow-dusted peaks under a blue sky with light clouds.

Part One

# GETTING STARTED

# INTRODUCTION



Adventure. Joy. Personal growth. Outdoor programs provide these, and more. But there are risks. Any person who holds a responsibility for the well-being of participants on outdoor programs may wonder, are we safe enough? How can we tell? When it comes to providing great outdoor experiences that meet risk management standards, are we the best we can be? This book can help you answer these questions with confidence.

*Risk Management for Outdoor Programs: a Guide to Safety in Outdoor Education, Recreation and Adventure* offers an in-depth view of risks faced in conducting organized outdoor programs, and how those risks can be managed appropriately. The book covers risks associated with participants, staff, activities, equipment, activity areas, transportation, organizational culture, and more. Chapters show how to identify risk management standards that should be met for each of these areas. And the book introduces a variety of tools for managing risks appropriately. Finally, readers are given ideas on how to put all the elements of effective risk management together and view them from a systems perspective.

The book is written to be useful in any country and any outdoor environment. Since not every possible situation can be addressed, of course, the book provides general guidance and tools for making good risk management judgments in any context.

This publication is suitable for use as a textbook in academic classes on outdoor program risk management at the university level. It's also designed as a textbook for risk management trainings. And it can be a desk reference for anyone who has a professional responsibility for managing risk in the outdoor context. Therefore, it can be read front to back, or readers can skip to the chapters

most relevant to their needs. But since all elements of a quality risk management system are interconnected, the book is best when treated as a whole.

The book is built around four fundamental approaches to risk management: Eliminate, Reduce, Transfer, or Accept risk, to socially acceptable levels. Each chapter begins with a list of learning objectives, followed by the chapter content, and ends with a chapter summary. The narrative format contains recommendations for appropriate professional practices, but is not structured to serve as a staff field handbook or list of procedures. Leadership of any organization wishing to develop a manual of policies, procedures, and guidelines for staff use based on the information here will need to use their own judgment about how best to construct such a manual.

*Risk Management for Outdoor Programs: a Guide to Safety in Outdoor Education, Recreation and Adventure* is written for use by anyone with a responsibility for the well-being of those involved with outdoor programs. This includes managers of outdoor organizations such as program coordinators, program directors, human resources leaders, gear and logistics managers, safety or risk management officers, and members of a safety or risk management committee. It also will be useful for executive leadership such as senior executives, the CEO, and Board members.

The book is designed to apply to outdoor programs that are independent businesses or nonprofits, within a university or grade-school setting, or part of a government agency. It covers a wide variety of contexts, including outdoor education, outdoor recreation, and healthcare settings such as wilderness therapy programming. While written primarily for those with

administrative leadership responsibilities, it can also be informative for guides, facilitators, instructors, and other activity leaders working directly with students, clients, or other participants. And, it can be an important resource for those conducting risk management reviews, incident reviews, or safety inspections.

From long expeditions in a remote and glaciated wilderness to a walk in the local park, *Risk Management for Outdoor Programs: a Guide to Safety in Outdoor Education, Recreation and Adventure* provides guidance for a wide range of outdoor settings. Each chapter is targeted towards the small to mid-sized outdoor program that is typical in the industry; tiny and very large programs should scale the principles introduced here to meet their organizational size. (For example, a very small organization might not have a dedicated risk management officer; a large entity might have a multi-person risk management department headed by a Vice President or Chief Safety Officer.) While the book has a global perspective, it may be most useful in countries without comprehensive, nation-wide legislation covering outdoor adventure safety, and the supporting national-level regulatory, auditing, incident reporting, best practice guideline and related infrastructure.

The content of this book represents one approach to excellence in outdoor program risk management. There are others, equally valid. In an industry that is ever-

evolving, the principles here should be considered ideas to consider and build upon, rather than the final word.

After reading this book and absorbing its contents, the goal is for you to have the information necessary to build and maintain organization-wide risk management systems for your outdoor program that meet outdoor industry standards. You should know where and how to access additional information and stay current with best professional practices. Ultimately, the successful application of the material in this book should lead towards outdoor programs being more safe and more effective in meeting their goals.

Managing risk appropriately in outdoor settings is not a mystery to be viewed with apprehension, but a subject that—with diligent study and the benefit of experience—can be approached with confidence. Here we hope to offer you not the final answers to every outdoor safety question, but tools to help you apply sound judgment to important risk management decisions.

Risk management, like much else, is a journey rather than a destination. *Risk Management for Outdoor Programs: a Guide to Safety in Outdoor Education, Recreation and Adventure* invites you to travel along that path. This book is offered to you as a trusted companion on your journey, to support you in providing excellent, fulfilling outdoor programs to satisfied participants. Let us begin, together.

# AN APPROACH TO RISK MANAGEMENT



## LEARNING OBJECTIVES

1. Reducing the probability and magnitude of risks to socially acceptable levels
2. Prerequisites for building a risk management system
3. Identifying risk management standards
4. Domains of risk
5. Policies, procedures, values and systems to meet standards
6. Field Manuals and administrative risk management documents
7. Risk Management Plan document
8. Implementing risk management systems
9. Continuous improvement of a risk management system
10. Risk management techniques: eliminate, reduce, transfer, accept
11. ISO 31000 standard for risk management
12. Legal and other risk management requirements
13. Sources of support for developing risk management plans

## 2.1. INTRODUCTION

Good outdoor programs provide adventure, fun, and personal growth. Yet outdoor experiences come with risks. These risks, however, can be managed to stay at acceptable levels. In this chapter we'll look at overarching approaches to appropriately managing the risks that may be experienced in outdoor programs.

We'll focus here on an organization-wide approach to risk. Addressing activity-specific risks is covered in Chapter 4, Activities and Program Areas.

Outdoor programs have a responsibility to reduce the level of risk to one that is acceptable by society. To do so, the organization must understand the risks that might be reasonably foreseeable in an outdoor program. The organization then must ensure that the probability and the magnitude of the risks are within socially acceptable limits. These limits can include legal regulations and a comparison with what a reasonable and prudent person in a similar situation would do.

For instance, a risk in rock climbing is loose rock falling and injuring a climber. The expectation is that this would rarely occur, and that if it does occur, serious injuries are unlikely.

To reduce the probability to a level of a rare occurrence, an organization would only select climbing sites that have minimal loose rocks. Each climbing route might be given a close, hands-on inspection and cleaning each season to remove loose rocks. And before each climbing session, a climbing site manager would assess site conditions, visually inspect the routes, and only use those considered reasonably free of loose rock.

To reduce to magnitude of the risk, climbers would be required to use helmets, and would be instructed on protective procedures in case of rockfall.

These common practices, along with others, can bring the risk of injury from rockfall to an acceptably low level. Risk is likely to remain after risks are addressed, but the residual risk is within the risk tolerance of the legal, social, cultural, and political environment in which the organization operates.