Risk Management for Organizations:
Keeping the Ship Afloat

by Preston Cline and Rick Curtis

The concept of risk management is one that has to encompass the whole of your program, from the first day of planning a new activity through the last piece of gear that is put away when the trip is over. It is such a huge task and involves so many different players in your organization that it's often hard to make sure that all the jobs get done and done well. Our goal is to give you a framework to operate from that will help you both vision and envision how risk management permeates your organization.

Like other approaches to experiential education, we are going to provide you with a metaphor to guide us through the process. To illustrate our process completely, we are going to start at the very beginning of our imaginary program. We are going to develop from scratch an outdoor adventure activity and take it through five stages, assessment, planning and developing the program, selecting & training staff, running the program and finally review and evaluating the program.

So, let's begin with our ocean voyage metaphor. Your job is to go on an ocean voyage. In order to do that you must:

1. Design a boat that is correct for the conditions and task at hand
2. Build the boat to the best of your ability
3. Select and train a crew for your voyage
4. Find and select the passengers for your voyage
5. Send the voyage out
   - Provide support from shore when needed and when feasible.
   - Bring the ship safely back into harbor.
6. Evaluate the performance of both ship and crew and make the necessary changes for the next voyage.

We are going to follow each of these through our program.

1	The Assessment	Determine the goals and objectives of your program.
2	The Plan	Plan a program that meets the stated goals and objectives.
3	The Staff	Select and train staff for your program.
4	The Clients	Recruit and select participants for your program. This may involve some pre-screening of your clients.
5	The Activity	Participate in the Activity provide the necessary field and administrative support to the program.
6	The Review	Evaluate the performance of the program, the staff, and the program operation. Review any incidents/accidents and make any necessary changes.

1. Assessment

When starting any program, the first step is to assess what your goals are for the program. What you are doing at this stage is identifying the type of voyage you want to take. You need to be able to answer the following questions – the 5 W's:

1. **Who** – who is this program for (adults, youth at risk, corporate executives, substance abusers, etc.). Is there just one population or more than one? Who are the staff going to be? **[Who are the passengers? Who are the crew?]**

2. **What** – what are you going to be doing with these people (ropes course, backpacking, rock climbing etc.) Will there be one activity or multiple activities? **[What are you going to do on this voyage, learn to sail, science, vacation?]**
3. **Why** – what are the goals/desired outcomes of your program? Why are you bothering to do it? **[What is the purpose of the voyage, discovery, self-discovery?]**
4. **Where** – where will your program activities take place? Will it be in a fixed site on in the field? Will field sites change? How will location impact your activities, staffing, trip preparation, etc.? **[Where will the voyage take place?]**
5. **When** – when will these programs take place? How will seasons and weather impact your activities? **[What kind of waters, conditions, etc. will the voyage have to or might possibly contend with?]**

Within this list of 5 primary topics you also need to prioritize them in the correct order for your program. If I am a rafting guide my What and Where may already be determined. I may want to start a rafting company on the Snake River. In that case, the other three areas flow from those two higher priorities. If I decide that I want to work with disabled youth in an adventure setting and develop self-esteem and self-confidence, then the Who and Why are the most important priorities and I must work from there to establish the others. In our voyage scenario this means deciding what sort of boat I am going to build. Who are the passengers, what experience am I offering them? Where will out voyage go? What sort of conditions will be face? What type of boat will I need (size, shape, speed, stability, seaworthiness, etc.).

The 5 W's are the keel and the major ribs of the boat. They serve as the framework that gives the vessel its shape and structural integrity. Keep in mind that if you have designed or built these 5 W's poorly then you have a weak frame on which to build the rest of your vessel.

2. Plan & Develop

The Assessment sets the basic design parameters for our boat. Now we have to draw out the detailed plans for the boat itself. Given the 5 W's from our Assessment we carefully craft a boat that most effectively meets those stated needs/goals. There are lots of different types of boats that we can build, anything from a small day sailor for operating on a lake or quiet water (e.g. New Games or Low Ropes Course at a permanent site) to an America's Cup Racer or Trans-Atlantic sailboat (e.g. climbing Mt. Everest). The key to building the right boat is to keep the Who, What, Where, When and Why (in whatever priority order) in mind throughout the planning process.

If you build an America's Cup racing boat but then staff it with an inexperienced crew and passengers who have never been sailing before, you are asking for trouble. So throughout the Planning and Development stage you must constantly reassess how what you are doing meets the 5 W's. Another part of designing you boat is to look at materials and costs. What will it take to build this boat? How long will it take? How much will it cost to do it right? You may find as you move through this stage that the costs/resources needed to build the boat design you have chosen are more than you have. At this point, before even laying the keel of the boat you have to reassess your original plan and potentially scale back. On the other hand, if your original plan was conservative, you may find that you can build a different boat than you originally planned.

There are a few basic requirements to all the boats that we are going to build:

1. All boats will have some complement of crew (staff & leadership)
2. All boats must be able to carry passengers and perhaps some cargo. Depending on the nature of your planned voyage the passengers may also serve crew functions or may be there just as passengers.

3. The boat must be able to stay afloat (operate safely) and make the journey while carrying the passengers and crew in the conditions it was designed for.

What we are doing here is building the boat. Now we put on the planks on top of this solid frame. So the order of our building process goes something like this:

1. **Lay the Keel or foundation** – define the goals for this program
2. **Add the Cross Frames** – define/develop the activities and practices that are used accomplish the program goals
3. **Add the Planks** – build the policies and procedures necessary to operate the program safely and effectively
4. **Caulk the Planks** – add the finishing touches to your boat to make sure that all the "little things" are done and leaks are taken care of
5. **Test the boat in the harbor** – put the program to some basic tests and identify where any leaks are. Fix these before sending out clients.
6. **Do a test voyage** – operate the program in the best conditions you can get. Monitor and review things carefully and make the necessary modifications before moving into full-scale implementation.

As you saw, each plank that we can build has some limitations. It is unlikely that we will be able to hire Emergency Room Physicians who are Mt. Everest Climbers to run our top rope rock climbing program. That means that not all the gaps will fit together perfectly. There will be some gaps in our hull. Gaps, if not patched result in leaks. By properly identifying these areas these gaps we can fill them with other support structures.

3. Selecting & Training of Crew

Now that you have identified the type of voyage you are going on and have planned and built your boat, now it is time to find and train a proper crew. You have already identified the voyage and constructed you boat. Part of that process involved looking carefully at your staff, the crew. There are three basic stages to getting your crew.

1. **Identifying All the Skills** - The first stage of this is clearly identifying those skills that the crew will need.
2. **Identify the Experience Needed for this type of Voyage** – What previous experience must the crew have (if any) to be able to successfully guide the passengers on the voyage.
3. **Determining What Areas You Can Train Your Crew In** – setting up the parameters of how much training you can provide for your crew and in what areas.
4. **Setting the Baseline Skills for the Crew** – Combining 1, 2 and 3 you can now see what skills and experience the crew must have in order to join. This sets up the screening criteria for your staffing.

The training process needs to be carefully thought out. Whenever possible you should be training your crew on the same type of boat and in the same conditions that they are likely to experience with their passengers. Simply taking them out for a day sail on a dingy will not prepare them for a rough Trans-Atlantic crossing.

<u>**Staff Screening**</u>
- Age
- Medical Conditions/Medications
- Physical Condition
- Judgment
- Experience level

- Type of Instruction/Teaching required
- Type and Level of Activity
- Their goals and expectations
- What "baggage" are they bringing with then

3

- What is their role on the voyage?

Reassessment – Once again you may find that you can't find crew that match your needs or you may not have enough resources to provide the type of training & experience you need for the crew you can find. If that's the case, it's time to either change the vessel or the voyage or both to create a situation that the crew is capable of handling.

4. Recruit & Select the Passengers

Who are your passengers? How will you find them? What are the goals and expectations they have for the voyage? What type of previous experience (if any) do they need to safely participate in this voyage?

Participant Screening

- Age
- Medical Conditions/Medications
- Physical Condition
- Population
- Experience level
- Why they are going
- Who they are
- What are their goals
- Are they there voluntarily?
- How have you marketed your program?
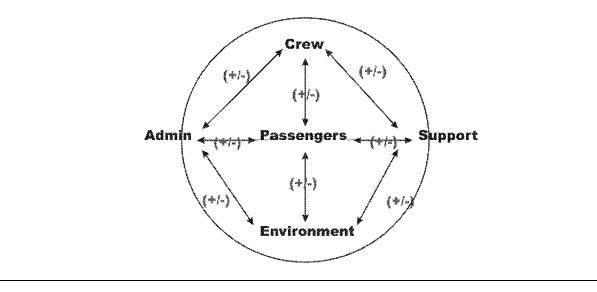- What disclosure have you done with the participants?
- What are their expectations (in part based on your marketing and your reputation)
- What "baggage" are they bringing with then
- What is their role on the voyage?
- What waivers, releases, advance information is provided?
- How & who does your screening to select or reject participants? Do you reject people?

Actors & Actions

A critical concept in this model is the notion of Actors and Actions both of which interact with each other to create either positive, neutral, or negative situations. In our boat metaphor, these things can either be positive, neutral or negative factors to our boat's buoyancy. The key Actors are:
- Field Staff (Crew),
- Clients/Participants (Passengers),
- Support Staff (people back at port or other resources like field resupply)
- Administration (the managers back at port monitoring and providing special support in the event of a problem)
- Environment

These 5 Actors all have the potential to interact with each other in complex ways. As a result, we represent these Actors through a Web diagram. At the center of the Web are the clients (passengers) who are the central focus of the voyage. The Actors generate the Actions (positive, negative, or neutral) that affect the boats buoyancy.
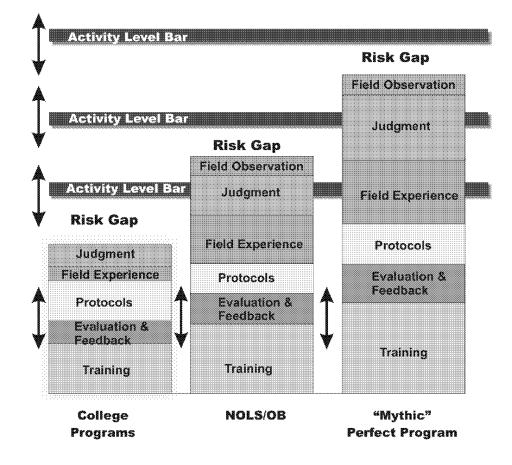

Management
- Scheduling of staff
- Communication both before the voyage, during if feasible and required, and afterwards
- Supervision and Direction provided
- Emergency Action Plan – knowledge of and implementation
- Protocols & Procedures
- Managing the Type and Level of Activity performed

Logistics
- Food
- Water
- Shelter
- Equipment
- Maintenance of Equipment
- Emergency Action Plan – knowledge of and role
- Understanding the Type and Level of Activity and providing the proper support

Environment

- Conditions – ex, terrain difficulty
- Location – remoteness
- Time of Year (season & weather)
- Critters
- Ecosystem – critters, environmental hazards
- Type and Level of Activity and how it leads to Accident Potential

All Boats Leak!

This is a fundamental fact for all vessels and all programs. No matter who you are, how well you have built you boat, how good your crew and passengers are, things happen. We seen this on everything from Mt Everest expeditions to trips to the moon. As you saw before, for each plank that we create for the boat there is always more that could be done—improved boat design, better plank fitting, stronger wood, etc.

There are also all sorts of unpredictable things that can happen that can cause the boat to leak or take on water. Both things anticipated and planned for and things entirely unplanned for result in leakage. The boat can also take on water from other factors external to the boat and crew. There are errors, bad weather, Acts of God, poor judgment, etc. that lead to the boat taking on water (a terrible storm, rough water, huge waves crashing over the deck). The ultimate catastrophe is for the boat to sink. Literally, this might mean that the program itself fails in its mission or it might mean that staff or participants are actually injured or killed. Anytime a boat sinks it is bad news.

When boats leak there are 4 possible Actions:

- **Plug the Leak** – identify the problem and solve it
- **Pump the water out of the boat** – if you can't prevent the boat from leaking you may be able to minimize the risks to a reasonable level to keep going.
- **Head Back to Port** – get out of the bad situation that your boat/crew/passengers are not prepared for
- **Sink** – if the boat goes down (your program falls apart) can the crew rescue the passengers and themselves.

So now we have some important things to think about. Think back to your boat design, the conditions you sent the boat out into and your passengers and crew. Are all of those things up to the challenges the voyage will hurl at them? What about the unexpected? Can your crew handle that? How much water can your boat take on and still be seaworthy? What happens if the crew can't bail fast enough and the boat is riding just above the waterline? What if the crew don't notice the leak until it is too late and that one rogue wave hits tipping the boat over?

Here we can see a basic model that shows that there are always some Risk Gaps in any program, even in the "perfect mythic program." You can see three different types of programs from a "para-professional" college outdoor program to a professional program like OB and NOLS or our mythic "perfect program." The columns below represent the different planks of your boat, how complete each one is and how well they fit together. We can reduce the potential for leaks by improving the quality of our construction and/or by raising or lower the activity level bar (how easy or difficult our voyage is).

5. The Voyage

That leaves us with us with the voyage itself (your specific program). Once the boat leaves the harbor, the crew and passengers may be more or less on their own depending on the location of

the program and the availability of Support and Administrative assistance while the voyage is underway. In the table below, we see the impact of:

	Action	Actors
Floating Forces – Positives (pumping & plugging)	- Scheduling - Communication - Anticipating Problems - Contingency Plans - Emergency Action Plan - Judgment - Delegation - Maintenance - Supervision - Of Staff - Of Participants	- Staff (Crew) - Participants (Passengers) - Support - Management - Environment
Waterline		
Sinking Forces – Negatives (leaks)	- Fatigue - Boredom - Communications - Scheduling - Distraction - Negative Interactions - Staff to Staff - Staff to Participants - Participants to Participants - Management to Staff - Chaos - Season - Judgment	- Staff (Crew) - Participants (Passengers) - Support - Management - Environment

Many of you will be familiar with a number of the models for how accidents occur. These include the Dynamics of Accidents Model developed by Alan Hale in the 1980's, work done by Jed Williamson and others that is used to identify the underlying factors that have precipitate accidents and catastrophic events.

All of these models fit in well with out boat and voyage metaphor. The Environmental Hazards and Human Factor Hazards models are all factors that cause the boat to leak. It is the responsibility of the crew and management to properly identify and eliminate these risks or provide resources to mitigate their effects. For example, the group that is backpacking in November in New England must be prepared to deal with extremely cold weather, including freezing rain and snow. Staff cannot prevent such weather but by having the proper equipment like good tents and making sure that participants have the proper clothing, they can prevent hypothermia and other accidents.

Catastrophic System Failure
A director's worse nightmare is the impact of catastrophic system failure. This results when the boat fills with so much water that it can no longer stay afloat. Catastrophic System Failure often occurs when numerous small leaks end up filling the boat with water. The crew and passengers may not even notice that the boat is just barely floating above the waterline, then one last factor is added in and the boat starts to sink. The question is, are the crew competent enough to save the vessel.

Where are the points for Potential Catastrophic System Failure in Your Organization?

Metaphor	Reality?
Boat that is not sturdy enough for the sailing conditions.	
Crew that is improperly or inadequately trained.	
Overloaded boat – too many passengers or taking on too many things.	
Unexpected weather or other conditions	
Too many small leaks in the boat.	
"Rogue Wave" that smashes into the boat	

6. Return to Port

Following a voyage, it is essential to do a careful Review and Assessment of how the voyage (program) went. These are just a few of the questions that you need to ask to establish how well your organization has planned and executed the voyage.

- Did the program meet its goals and objectives?
- Was the program properly planned to facilitate meeting goals and objectives?
- Were the crew adequately prepared to deal with what they encountered? Do they need additional training?
- Were there accidents or close calls on the program? If so were they handled and how? Are there changes that need to be implemented?

All Vessels Get Old

All boats get old. With regular upkeep and maintenance (constant review, reassessment) and through staying up to date on the latest standards and techniques of seamanship (outdoor programming), vessels can be kept sailing safely for years. There are boats out there built hundreds of years ago that are still afloat and sailing thanks to careful and regular maintenance. However, failure to stay current and do the proper review and restructuring means that boats become leakier and less seaworthy overtime. This is especially problematic since crews (field staff) often change frequently and don't develop lots of organizational history and experience. The administration, often the keepers of organizational history, may be too far removed from the field and base their operations on outdated standards and approaches. "It has always worked for us that way," is a statement that has caused far too many tragedies. You need to think carefully about how you will keep your vessel afloat and sailing well for the long haul. In some cases you may decide either to completely retire a boat (program) or build a new one from scratch. You also might decide that the boat, the crew and/or the passengers are no longer appropriate for the type of sailing conditions you have been putting them in so you place them in a less demanding setting. This may provide you will a more than adequate level of risk management.

Our goal here has been to give you an overview of how Risk Management permeates all aspects of your program. It is not simply the job of a "risk manager" in your organization or some

committee that meets twice a year. Everyone on the organization has to understand the big picture and their individual areas of responsibility within that big picture in order to make sure that risk is properly managed and that the overall goals of your voyage, a safe and beneficial experience for you passengers, has been met.

Bibliography & Resources
www.outdoored.com/safety/