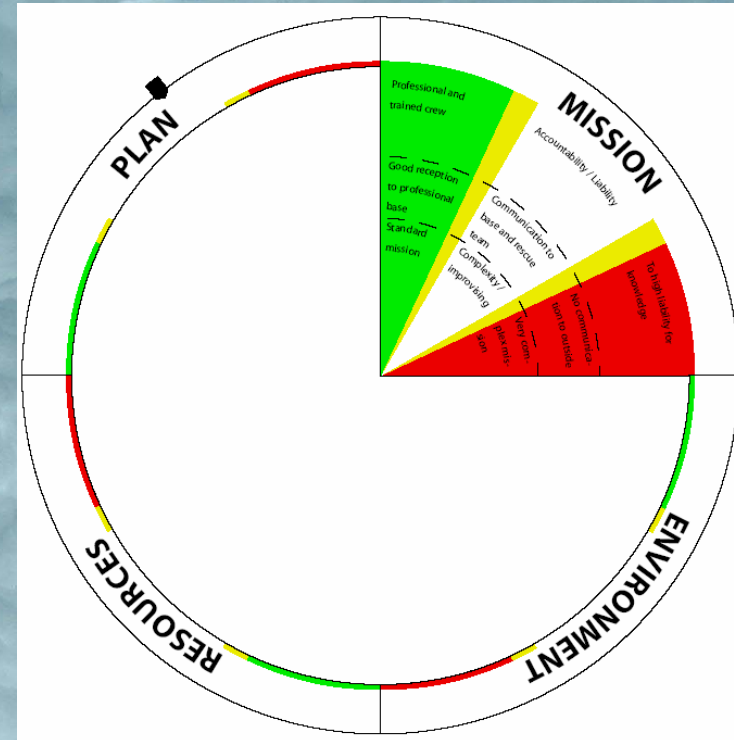


# Rescue Compass

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# Risk management on Avalanche rescue

- Every Year there are reports of rescuers injured or killed while on rescue mission.
- Most rescue missions occur when the avalanche danger rating is 3 or higher.



A photograph of a group of people in winter gear standing on a snowy mountain slope. The scene is set in a high-altitude, snowy environment. Several people are visible, some wearing bright jackets like yellow and blue. One person in the foreground is wearing a blue jacket and yellow pants. The background shows a steep, snow-covered mountain with some rocky patches. The overall atmosphere is cold and rugged.

**Based on Krister Kristensen “ Risk a Life to Save a life” (Pontresina 2007) the Rescue Compass outlines an additional tool for decision on rescue.**

**Combining the existing tool of Krister Kristensen for the initial “ call out” or base decision, with the new Rescue Compass for in the field, or on site decision could enhance avalanche rescue and rescue education**

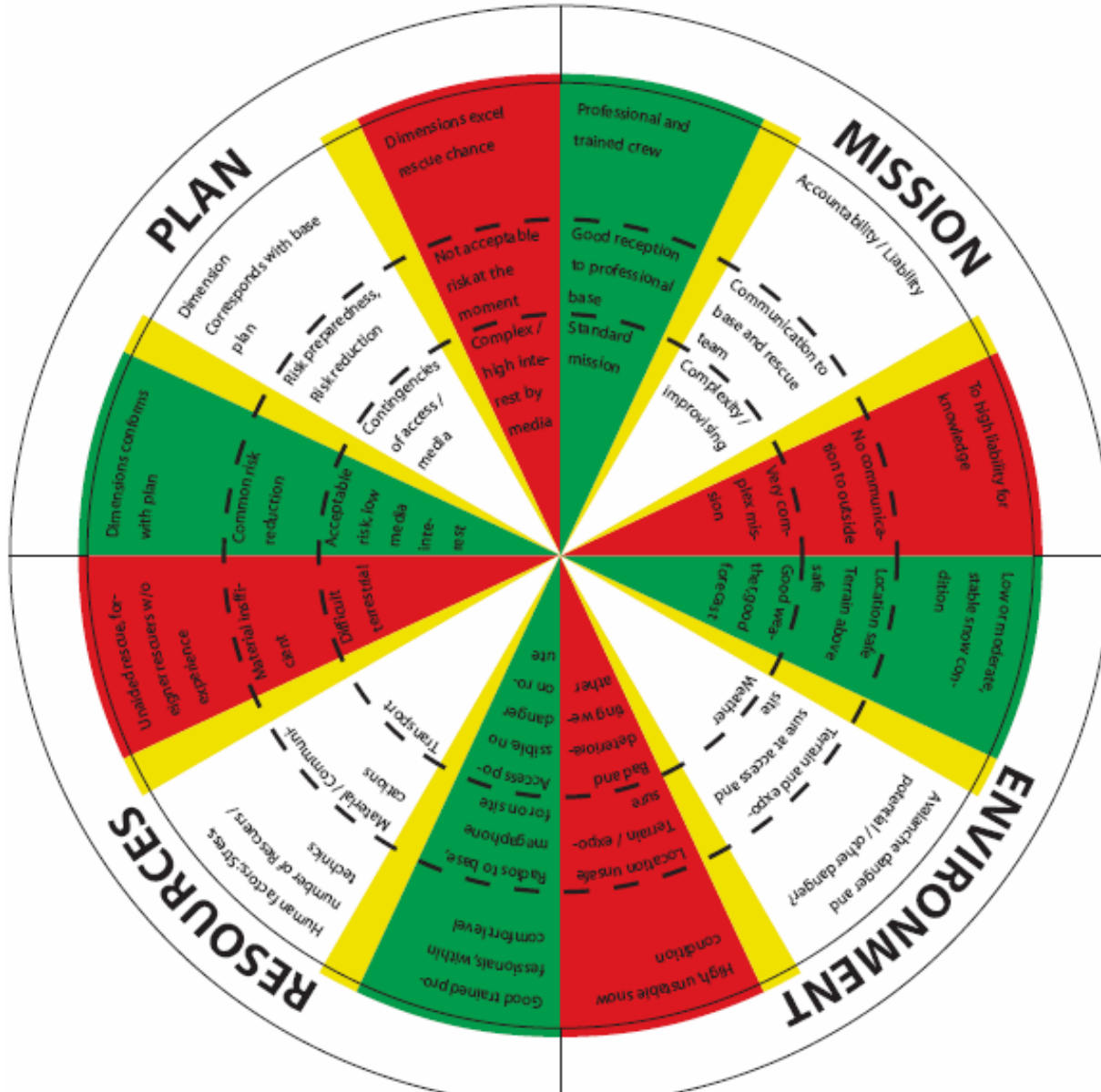
**The Rescue Compass is a decision support**

# Rescue Compass

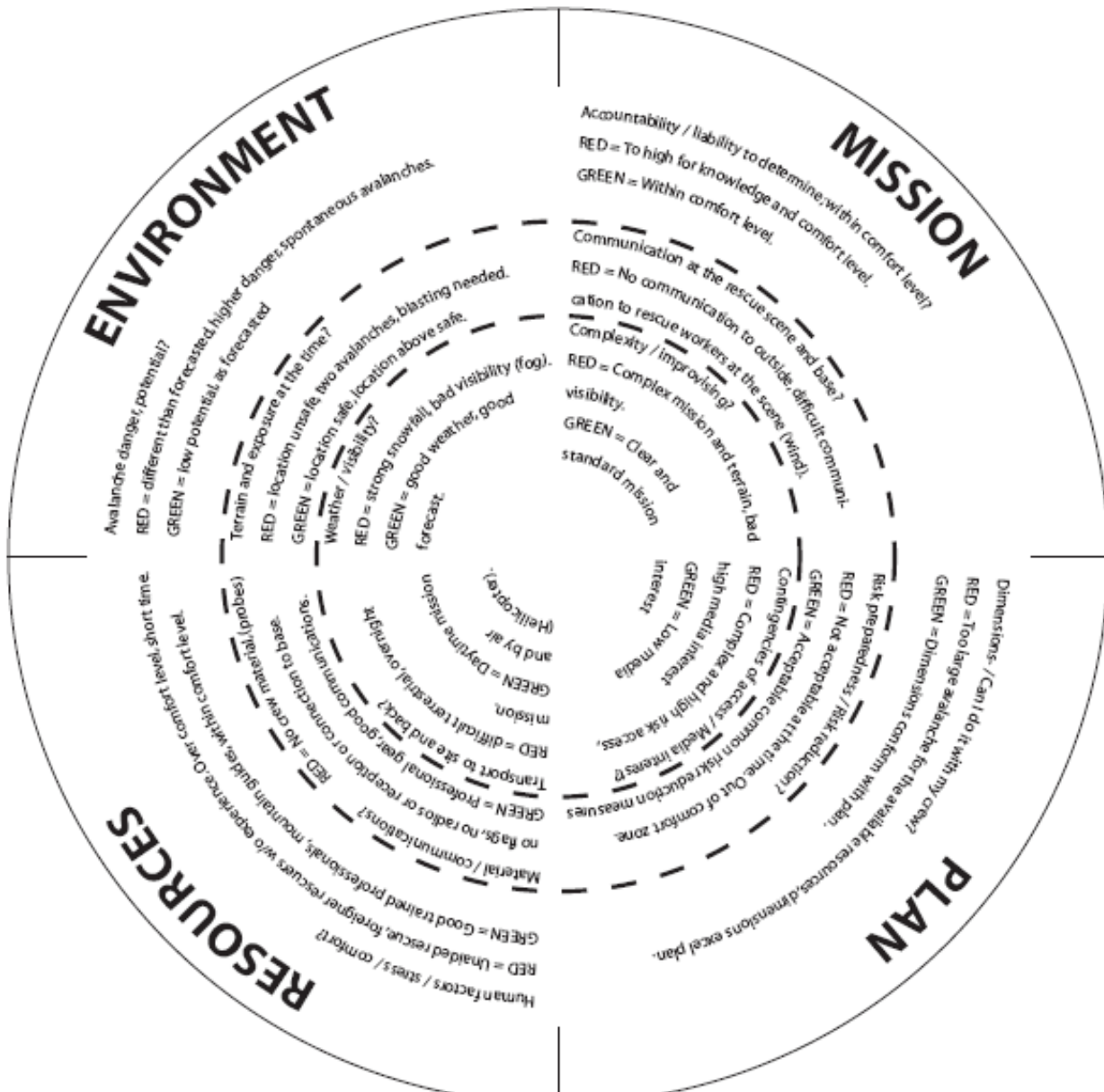
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- The Rescue Compass is a “ on site decision support tool”
- The compass offers for the 4 categories different checkpoints for risk reduction.
  - > Mission
  - > Environment
  - > Resources
  - > Plan
- It contains a disk ( Compass ) for the first and overall decision support
- And it contains a booklet for additional reassessment of the 4 categories for risk reduction
- Avalanche structured guidelines
- The Rescue Compass is still a work in progress

# Compass front site

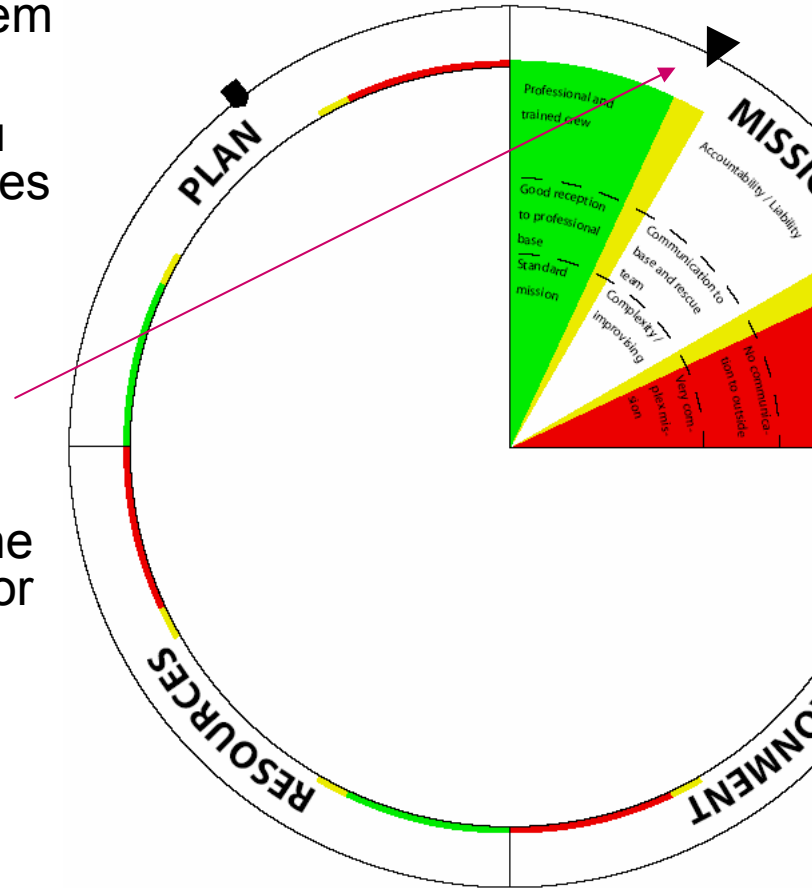


# Compass back site



# Instruction for Compass

1. Check each of the fields ( quarter ) for reducing risk of your rescue mission
2. Start in the white section / initial problem or question
3. Check each point, decide whether you are in GREEN or RED or tendency goes to GREEN or RED
4. In tendency to GREEN: check and reduce / fulfil task
5. In tendency to RED: try to reduce the risk or retreat
6. Remember by inserting the knob on the field whether your in GREEN or RED or in the tendency YELLOW
7. Go to the next field (quarter)
8. Count all GREEN and RED fields → general tendency
9. Check the backside for quick answer and the booklet for more options



# Example of the booklet

Environment / Weather				
Green	T	White	T	Red
ns of new avalanche y or by danger possibility sting		Remote release of second avalanches		Second avalanches and re triggered avalanches poss Blasting not possible due t weather

## Environment / Terrain and snow stability

### Mission

ed rescue crew or ete rescue crew		Risk reduction for rescue crew entering the accident site		Just one dog team , or jus helicopter flyover with tran
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### Resources

trained rescue sionals, mountain guides their comfort level		Human factors and decision: Overall impression of situation? Capability and profile of rescue crew?		Unaided rescue, foreigner rescuer's without experien over comfort level
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# Example of check list

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## Allocation of tasks

- Rescue leader, Site commander
- Receiver guard
- Safety guard
- Briefing guard
- Head avalanche dog handlers
- Section commander
- Head probing crew
- Recording secretary

# Risk assessment with the compass

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- If your in RED your on high risk on your decision
- If your in tendency to RED try to reduce the risk by taking action on this problem
- If your in tendency to GREEN check and fulfil task to solve the problem
- If your in GREEN your in common risk, still reassess continuously on risk that may occur

# Example Snowmobile accident

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- 3 snowmobiles were buried in a medium (size 3) avalanche last year.



# Example Snowmobile accident

- A second group of 8 without rescue training started searching and were hit by 2 more small (size 2) avalanches.
- > decision possibility with the Rescue Compass/ Booklet

Environment / Weather		
Green	T	Red
Environment / Terrain and snow stability		
Presence of new avalanche or by danger possibility existing	T	Remote release of second avalanches
	T	Second avalanches and re-triggered avalanches possible. Blasting not possible due to weather
Mission		
Unaided rescue crew or complete rescue crew	T	Risk reduction for rescue crew entering the accident site
	T	Just one dog team, or just helicopter flyover with transport
Resources		
Untrained rescue professionals, mountain guides over their comfort level	T	Human factors and decision: Overall impression of situation? Capability and profile of rescue crew?
	T	Unaided rescue, foreigner rescuer's without experience over comfort level

# Example Snowmobile accident

- In the end only 3 of them managed to dig themselves out to safety
- Lucky for them someone had a personal locator beacon that sends out a satellite signal to friends email with GPS coordinates and programmed HELP message.

Resources				
Green	T	White	T	Red
		<i>Material</i>		
radio communication to megaphone and phone on		Communication?		No communication to outside to the base
professional crew, with in level of the crew		Can I do it with my resources?		Need more support and resources, crew not well educated enough; out of crew level

# Example Snowmobile accident

- Professional search and rescue couldn't get to the site until next day and only after 2 hours of heli bombing.

Plan			
Green	T	White	T Red
able risk, common risk on measures		Urgency / priority?	Risk not acceptable at the moment, waiting until risk f change

# Conclusion

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- Using the existing tools for the initial “call out” ( Risk a Life Save a Life? Krister Kristensen)
- Using the Rescue Compass at the front , access, accident site, decision and risk reducing process.
- Having a structured option as a decision support
- The booklet for more information and checklist for more possibilities on rescue
- To come home safe after a rescue mission.

# Thanks for all the support

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