Search and Rescue for Outdoor Leaders

By Tod Schimelpfenig

Emergency Response Plans

The Plan

Human Resources

Communications

Local Resources

Planning: Before you go into the field.

- Review your route.
  - Farthest from a road?
  - Obstacles such as passes or rivers?
  - Unusual road heads as exit alternatives?
- Communication options?
- Program Resources?
- Outside Resources?

Planning: Daily in the Field

- What are the likely scenarios?
- What are my options today?
- How are my people?
- What are my resources?
- What is my communication plan?
- What if I am the patient?

Planning: Table Top Exercise

Conference Proceedings
WRMC 2008

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People are the most important resource.

How will your people react in a REAL emergency?

How to deal with someone who is NOT prepared for an emergency...

Medical Protocol...
Is yours well-defined and understood?

Field Protocols

- Medication Protocols
  - Allow your staff to administer a pain medication for that dislocated shoulder.

- Treatment Protocols
  - Support your staff when they relocate the shoulder.

- Evacuation Protocols
  - Tell your staff when you expect them to evacuate this relocated shoulder, and when it can stay in the field.

Does your Plan include local rescue/medical agencies?

Who are these people?
The "Incident Command System"

What will you do with your existing field operations?

Just HOW BIG is the emergency???

Decision Tools
Plan for the Lost Person: Staying Found Practices

In and around camp
- Handrails, boundaries, cardinal directions.
- Expectations for gear.
- Informing staff, buddies, signaling.
- Time the walk.

Plan for the Lost Person: Staying Found Practices

On the trail
- Travel plans.
- Navigation skills.
- Expectations if overdue or lost.
- Whistles and signal mirrors.

Plan for the Lost Person: Responses

Overdue v lost?
- Parameters for program decision to respond.
- Weather, time, terrain, experience, health

Plan for the Lost Person: Responses

Becoming Found
- Stay or move?
- Visibility and signaling
- Expectations for program response

Plan for the Lost Person: Staying Found Practices

In and around camp, if disoriented
- Stay calm. Look for your landmarks. Listen.
- Stay put. Stay visible.
- Prepare to spend the night out early.
Search Methodology

WHO are we searching for?

• Who / since when?
• "LSPLSP"
• Subject’s "stuff"
• Search and rescue dogs
• Subject’s emotional state of mind

Who’s Missing?
Since When?
“Last Seen Point?”

Appearances are deceiving.

Subject’s equipment, food, clothing, communications?

Footwear, sole pattern?
Scent articles? How to handle...

Search Methodology
HOW should we search?

• Documentation
• "Hasty Search"

Document EARLY...
...and often

Early Search Techniques
The "Hasty Search"
• Fast and loud (looking for conscious subjects)
• Trail Runners
• Creating "track traps"
• "Hasty Search" is effective most of the time

The "Line Search" or "Grid Search"
• Only as a "last resort"

With enough personnel, search the roads too.
Utilize any tools you can

Utilize staff as Team Leaders

How to get students involved?

- Caring for subjects
- Creating shelter
- Providing food and drink
- Providing emotional support for all

ALWAYS send people out in groups of two or more...

December 21, 1966 – China Lake Mountain Rescue Group
Death Valley National Monument

Manage Workload and Fatigue

- Make sure team members are eating, drinking, and staying warm and dry.

Be prepared for an extended search...
Manage Workload and Fatigue

- Plan transition and rest periods.
- Don’t ignore your life outside work.
- Be aware of cultural, personal and organizational restraints to asking for help.

Search Methodology

The SCIENCE of search:

- We’re NOT searching for lost people
- What about notes?
- “POA”
- “POD”
- Briefings and debriefings

We’re searching for CLUES, not subjects

Leave notes at trailheads, supply and exit points

“Probability of Area”

“Probability of Detection”

Conduct a thorough debrief of field teams on return
Plan for the Lost Person: Using SAR Concepts
- Determine your PL3. When?
- Determine urgency.
- Use Travel Plan to ID where they may have gone astray.
- Establish confinement, attraction, hasty search.
- Plan your search areas.
- Record your efforts.
- Ask for help early.

Lost Person Behavior
- Trail?
- Turn around?
- Shortest path...
- Get high or get down?
- Uphill vs. downhill
- Upstream vs. downstream
- Give up hope?

Trail...
Turnaround?
Shortest path a straight line.

Uphill vs. Downhill

Oh, say, can you see???

Upstream vs. Downstream
**Despondent Subjects**

- Despondent = EMERGENCY!
- Subject may try to hide
- No tendency to protect themselves
- How far do they travel?

**Rescue Response**

- Less litters, more helicopters.
- Expectations for rapid rescue.

“**Rescue Fever**”

Can your people keep their composure and avoid trying to be the HERO?

**Tragedy on Mount Rainier**

August 12, 1995 – Mt. Rainier National Park

**Litter Evacuations**

- Anticipate focus and energy change when initial excitement wears off.
Pad the litter and assure eye and head protection.

Monitor the patient.

Litter bearer change-overs...

Understanding the technical requirements.

A climbing anchor needs to support a falling climber...

A rescue anchor needs to support a falling SCHOOL BUS!

Helicopters in Field Operations:
- Chopper protocol
- Helicopter resources – know them
- Staff authority
- How to request
- Flight times
- Communications
- Local law enforcement
Statistics show that rescuers are far more likely to be injured or killed in an aviation accident than by any other means.

Fatality by Accident Type
National Park Service (1925-2001)
N=31
- Suffocation: 10%
- Drowning: 10%
- Fixed-wing crash: 13%
- Medical: 3%
- Rotary Wing crash: 38%
- Fall: 23%

Chopper protocol in your plan?

Know your program’s capabilities

Mt. Hood - May 30, 2002
CONCLUSION

- Plans
- Search theory
- Rescue theory
- Helicopters

The End

Please wake the person next to you

Mountain Rescue Association
www.mra.org