

#### References

 SAR Field Certification Study Guide, published by NM DPS

 $http://www.nmsarc.org/resources/FieldCert\_docs/StudyGuide.pdf$ 

#### Objectives

- Identify general safety concerns related to a SAR mission
- Describe possible health concerns that could develop during a SAR mission
- Identify natural, man-made, and weather related hazards that could be encountered on SAR missions
- Identify safety concerns associated with helicopter operations on SAR missions

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#### Overview

- General Safety
- Health Concerns
- Natural and Man-Made Hazards
- Weather Hazards
- Helicopter Safety
- The Team's Responsibility and Right of Refusal

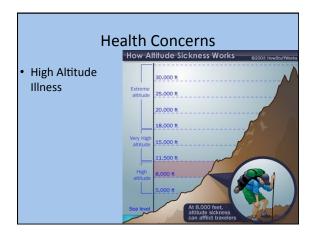
#### **General Safety**

- Safety is Paramount!
  - Your safety is #1 Priority
  - 2<sup>nd</sup> Priority to your team and subject
- Know your Limitations
- Have the proper Equipment

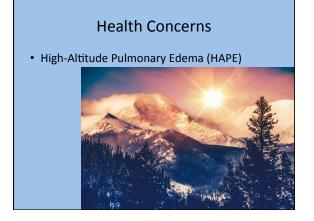


#### **Health Concerns**

- High Altitude Illness
- Acute mountain sickness (AMS)
- High altitude pulmonary edema (HAPE)
- High altitude cerebral edema (HACE)



## Health Concerns • Acute mountain sickness (AMS)



# Health Concerns • High-Altitude Cerebral Edema (HACE)

Natural	and	Man-l	Made	Hazar	ds

- Many Types of Terrain
  - Desert
  - Mountains
  - Plains
  - Rivers
- Man-Made

#### Natural Hazards

- Some of the natural hazards encountered in New Mexico include:
  - Cactus and other spiny plants, dead snags, thick growths of trees and brush
  - Loose rocks and rock slides, steep drop-offs, sink holes, high altitude, avalanches, caves
  - Bears, mountain lions, bobcats, wolves, livestock, snakes, insects, spiders
  - Streams, rivers, lakes, flash floods
  - Cold and heat, wind, rain, hail, snow, lightning, bright sun, darkness

#### Man-Made Hazards

- Some of the man-made hazards encountered in New Mexico include:
  - Marijuana fields and Methamphetamine labs (which may be booby trapped)
  - Mines, Indian ruins, old cabins and other buildings
  - Barbed wire
  - White supremacy and other militia groups, other individuals wanting absolute privacy
  - Hunters
  - Wildland fires

#### Natural and Man-Made Hazards

- Protection
  - Be aware of your surroundings
  - Ask questions
  - Personal Protective Equipment (PPE)
  - Take charge of your own safety

Weather Haza	rds
<ul><li>Lightning</li><li>Flash Floods</li><li>Cold Injuries</li><li>Hot Climate</li></ul>	







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#### **Break**

• Please be back in 15 minutes

# Weather Hazards • Cold Climate - Hypothermia - Frostbite - Avalanches

#### Weather Hazards

• Hypothermia



#### Weather Hazards

- Hypothermia
  - Mild



#### Weather Hazards

- Hypothermia
  - Mild
  - Moderate



#### Weather Hazards

- Hypothermia
  - Mild
  - Moderate
  - Severe



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#### Weather Hazards

- Frostbite
  - Frozen Tissue
  - Tissue & Cell Destruction
  - Vasodilation
  - Rewarming
  - Signs and Symptoms
  - Prevention
  - Intervention



#### Weather Hazards

- Avalanches
  - Avalanche Awareness
  - Proper Training & Equipment
  - Education
  - Avalanche Victims



## Weather Hazards • Hot Climate - Heat Cramps - Heat Syncope - Heat Exhaustion - Heat Stroke - Dehydration

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#### Weather Hazards

- Heat Cramps
  - Cramping & Spasms
  - Rest, Hydration, & Electrolytes

#### Weather Hazards

- Heat Syncope
  - Syncopal Episode
  - Muscle Spasms

#### Weather Hazards

- Heat Exhaustion
  - Signs & Symptoms
  - Treatment

#### Weather Hazards

- Heat Stroke
  - Life-threatening Emergency
  - Signs & Symptoms
  - Treatment

#### Weather Hazards

- Dehydration
  - Signs/Symptoms
  - Treatment
  - Can be Serious

es.	Helicopter Safety
	Outside the Aircraft
	Inside the Aircraft
	Helicopter Landing Zone(LZ)
	Other Helicopter Considerations

## Helicopter Safety • Outside the Aircraft - Rotor System - Entering/Exiting - Noise and Debris

#### **Helicopter Safety**

- Inside the Aircraft
  - Secure equipment
  - Passenger interference
  - Communication
  - Seatbelts



#### **Helicopter Safety**

- Helicopter Landing Zone(LZ)
  - Wires & Poles
  - Secure the area
  - Protect yourself
  - LZ selection



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#### **Helicopter Safety**

- Other Helicopter Considerations
  - Providing information, if requested
  - Wind indicators
  - Refueling operations
  - Safety is priority





#### **Summary**

- General Safety
- Health Concerns
- Natural and Man-Made Hazards
- Weather Hazards
- Helicopter Safety
- The Team's Responsibility and Right of Refusal