Jay Shields
Chief Ranger
Visitor & Resource Protection
Olympic National Park
National Park Service
Coming to the Rescue!

What Happens During an Emergency Response to a Serious Incident in a National Park?
Objectives
Upon completion participants will be able to:

1) Understand the history and applicability of SAR in the NPS

2) What is ICS (incident command system) and how is it applied to a SAR incident.

3) Understand who will be responding when a response occurs for you or for someone in your group.

4) Plan ahead….but what does that really mean?
Incident Management Statistics

$4 million spent annually on SAR Service-wide
3,453 annual SAR incidents
84,000-hours from park staff and volunteers

Incident Management Needs

- Well Trained and Qualified Staff
  - Operational Leadership
  - Emergency Medicine
  - Search & Rescue
  - All-Hazards Incident Management

- Supplies & Equipment
- Reliable Communications & Notification Procedures
- Strong Leadership Infrastructure
So what are we actually talking about from a numbers standpoint?

National Park Units – 417

Reported SAR Incidents - 3,453
(all reportable incidents requiring a search or a rescue or both)

Fatalities – 182 (those that die during or after the incident, directly related to that incident)

Saved – 1,000 (those that would have died without intervention)
This document may not be reproduced without the consent of the author. WRMC 2018.

Alaska

Hawaii

US Virgin Islands

https://arcg.is/fKbuS
The largest use of SAR was for those not injured or ill, meaning they were either lost, or were overdue and resources were “launched”.

https://arcg.is/fKbuS
Most SAR’s still occur on land, however water SAR’s have continued to grow.
Largest age group identified are between 20-29 years old and over 60 years of age.
Data shows males represent 49.7% and females 36.2% of SAR related incidents.
Brief History

1849 DOI Establishment
1872 Yellowstone
1890 Yosemite
1906 Antiquities Act
1916 Organic Act
With the establishment of a national park system, visitation grew slowly in the first 40 years but has grown exponentially to current numbers…which continues to trend upwards.

2017 numbers?
As visitation increased so did the need for rescues.

The grand rescue 1967, Grand Tetons
First Yosemite climbing fatality
Mt Rainier crevasse rescue
“The saving of human life will take precedence over all other management actions as the Park Service strives to protect human life and provide injury free visits” ….
This doesn’t mean we place others into peril…including rescuers

Rangers make individual search and rescue decisions based on the following considerations:
- Safety
- Human resources
- Economic resources

U.S. Court of Appeals for the Tenth Circuit - 949 F.2d 332 (10th Cir. 1992) – Johnson vs US
LE + EMS + SAR + Fire = Ranger
Due to the needs of a varied mission with limited personnel, the majority of the NPS’s SAR and EMS responders are Federal Law Enforcement Officers.
Combine our trained officers + partner agencies; we can insert resources just about anywhere....
....at anytime
From the highest peaks on the continent to the lowest and narrowest desert slots, the NPS is capable of extraordinary patient access.
The NPS has a robust EMS response capability, to the extent that the NREMT recognizes the NPS as the “51st state” for certification purposes.
The NPS is one of four primary agencies for SAR in the USA (DOD, USCG, FEMA, NPS). The NPS coordinates with other federal, state, tribal, and local governments to assist with immediate response nationwide under ESF (emergency support functions).
Incident Command System

ICS is a standardized way of control, coordination and command of emergency responders with a common terminology and hierarchy that all agencies prescribe to.
ICS is a standardized, incident management approach that:

- Allows for the integration of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure.
- Enables a coordinated response among various partners, jurisdictions and functional agencies.
- Establishes a common process for planning and managing resources.

ICS should be applied by all park programs for both small and large incidents, including special events!
The Call Comes to us in many ways…

……in a variety of means and from a variety of reporting parties…

- cell as a 911
- inReach
- Spot
- 3rd Party and 4th party
- Parent
- Spouse
- Friend
- Work
- NPS initiated
Personal Locator Beacons (PLB)
Do you or any in your group have one?
Is it registered?
Do you know how to use it?

http://cruising.coastalboating.net/Seamanship/PLB/IndexPLB.html
“I can’t go up and I can’t go down on the trail. I have 4 dogs and the tide is coming in in 3 hours….I also need help setting up my campsite, please come help me”

“I don’t like bats so I ran and now I am lost…..I crossed a bridge, can you come get me?”

“Jill’s arm just fell off…..what do I do now!?!”

“This device (spot) is great! Without this we never would have attempted this hike”.
What Happens next?

Who is going to respond?

How Long will it take?

What Role Does your organization play in the response?

9-1-1
47.8320° N, 123.5696° W
<table>
<thead>
<tr>
<th>What Happens next?</th>
<th>Info to IERCC, AFRCC, NPS Dispatch, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is going to respond?</td>
<td>NPS, allied agencies, contract ships, volunteers</td>
</tr>
<tr>
<td>How Long will it take?</td>
<td>Hasty vs multi operational</td>
</tr>
<tr>
<td>What Role Does your organization play in the response?</td>
<td>Excellent scene size up, SSOAP notes, assist in carry out, pt care etc</td>
</tr>
</tbody>
</table>
Search vs. Rescue: What’s the difference?

**SEARCH**
- **Unknown** location of subject
- Requires **lengthy** investigation
- ICS can quickly become **robust**
- Significant personnel needs
- Often **multiple** operational periods
- GIS mapping very **helpful**
- Subjects often locate themselves, or
- Are located deceased, or
- Tragically, sometimes never located

**RESCUE**
- Typically **known** location of subject
- Requires **limited** investigation
- ICS tends to be more **simple**
- Moderate personnel needs
- Often completed in **one** operational period
- GIS mapping **not usually needed**
- BLS vs. ALS patient care
- Slow vs. rapid evacuation
- Aviation resources often needed
Determination of initial resources is made based upon reporting party (RP)

Resources are gathered and dispatched appropriately (i.e. helicopters are not always dispatched)

![Image of four people on horses in a mountainous area, representing a resource派遣的情景。]
Initial investigation

A process to initiate what and how resources will respond and what we are facing
**SEARCH URGENCY RATING**

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AGE</strong></td>
<td></td>
</tr>
<tr>
<td>Very Young</td>
<td>1</td>
</tr>
<tr>
<td>Very Old</td>
<td>2-3</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td><strong>MEDICAL CONDITION</strong></td>
<td></td>
</tr>
<tr>
<td>Known, suspected, injured, ill or mental problem</td>
<td>1-2</td>
</tr>
<tr>
<td>Healthy</td>
<td>3</td>
</tr>
<tr>
<td>Known, fatality</td>
<td>4</td>
</tr>
<tr>
<td><strong>NUMBER OF SUBJECTS</strong></td>
<td></td>
</tr>
<tr>
<td>One alone</td>
<td>1</td>
</tr>
<tr>
<td>More than one (unless separated)</td>
<td>2-3</td>
</tr>
<tr>
<td><strong>SUBJECT EXPERIENCE PROFILE</strong></td>
<td></td>
</tr>
<tr>
<td>Inexperienced, does not know area</td>
<td>1</td>
</tr>
<tr>
<td>Not experienced, knows area</td>
<td>2</td>
</tr>
<tr>
<td>Experienced, not familiar with area</td>
<td>2-3</td>
</tr>
<tr>
<td>Experienced, knows area</td>
<td>3</td>
</tr>
<tr>
<td><strong>WEATHER PROFILE</strong></td>
<td></td>
</tr>
<tr>
<td>Pest and/or existing hazardous weather</td>
<td>1</td>
</tr>
<tr>
<td>Predicted hazardous weather (less than 8 hours away)</td>
<td>1-2</td>
</tr>
<tr>
<td>Predicted hazardous weather (more than 8 hours away)</td>
<td>2</td>
</tr>
<tr>
<td>No hazardous weather predicted</td>
<td>3</td>
</tr>
<tr>
<td><strong>EQUIPMENT PROFILE</strong></td>
<td></td>
</tr>
<tr>
<td>Inadequate for environment &amp; weather</td>
<td>1</td>
</tr>
<tr>
<td>Questionable for environment &amp; weather</td>
<td>1-2</td>
</tr>
<tr>
<td>Adequate for environment &amp; weather</td>
<td>3-5</td>
</tr>
<tr>
<td><strong>TERRAIN/HAZARDS PROFILE</strong></td>
<td></td>
</tr>
<tr>
<td>Known terrain or other hazards</td>
<td>1-3</td>
</tr>
<tr>
<td>Few or no hazards</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

Note: All figures are relative and the total from the chart only indicates a possible relative urgency. Other factors bearing on the incident must also be evaluated by the incident commander to finally establish urgency. The decision to initiate an emergency response should be based upon the totality of the circumstances.

**SEARCH RESPONSE GUIDELINES**

<table>
<thead>
<tr>
<th>FACTOR SUM</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 7-10</td>
<td>Urgent Response</td>
</tr>
<tr>
<td>B 11-13</td>
<td>Measured Response</td>
</tr>
<tr>
<td>C 14-17</td>
<td>Evaluative Response, should any action be taken?</td>
</tr>
<tr>
<td>D 18-21</td>
<td>Investigate further</td>
</tr>
</tbody>
</table>

**OBJECTIVE DESCRIPTION OF RESPONSE GUIDELINES:**

A. Convinced that someone will die or be seriously injured if help does not arrive quickly
B. Measured response differs from an urgent response in speed and number of resources
C. The problem is unconfirmed or seems likely to resolve itself
D. High objective possibility that subject is not in area or is not in a hazardous situation

**TOTAL SEARCH URGENCY RATING:**

Completed By: ___________________ Date & Time: ___________________
Initiation of Response

- Resources needed
- Command Structure
- PLS established
- Resupply of resources
- Longevity of operation
- Contingency plans for multiple Operational Periods
1) Ground crew of initial hasty SAR staff ~2-4
2) Launch of helicopter or contingent assets if applicable.
3) As time increases so does the need for additional resources and “ramping up” of SAR personnel.
Typically the first tactic used in a SAR incident to quickly get a team to the subject’s last known point.

Small group often comprised of at least two persons, who travel fast, light, and are self sufficient for a 24-hour operational period.

Report directly to the IC through the SAR Duty Officer (SDO) or Ops

Basic medical gear, PPE, qualified as NPS SAR Technician - Type 3 (SRT-3).

Once on scene, they “size up” the incident and radio the ICS to request appropriate resources.
Planning Ahead

**Before the Trip**
“Know Before You Go”
What you need to know and consider before going out to a park

**Arrival at Park**
“Ask a Ranger”
Get up-to-date information on park requirements and safety information

**During the Trip**
“Assess and Adjust”
Actions to consider while you and your group are enjoying the activity

**After the Trip**
“Share the Experience”
What you can do to be better prepared for your next park adventure

[https://www.nps.gov/subjects/healthandsafety/trip-planning-guide.htm](https://www.nps.gov/subjects/healthandsafety/trip-planning-guide.htm)
Know Before You Go

Always Pack the **10 Essentials**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. NAVIGATION</strong></td>
<td><strong>2. SUN PROTECTION</strong></td>
</tr>
<tr>
<td>Map, compass, and GPS system</td>
<td>Sunglasses, sunscreen, and hat</td>
</tr>
<tr>
<td><strong>3. INSULATION</strong></td>
<td><strong>4. ILLUMINATION</strong></td>
</tr>
<tr>
<td>Jacket, hat, gloves, and rain shell</td>
<td>Flashlight, lanterns, and headlamp</td>
</tr>
<tr>
<td><strong>5. FIRST-AID SUPPLIES</strong></td>
<td><strong>6. FIRE</strong></td>
</tr>
<tr>
<td>First Aid Kit</td>
<td>Matches, lighter &amp; fire starters</td>
</tr>
<tr>
<td><strong>7. REPAIR KIT &amp; TOOLS</strong></td>
<td><strong>8. NUTRITION</strong></td>
</tr>
<tr>
<td>Duct tape, knife, &amp; scissors</td>
<td>Extra food</td>
</tr>
<tr>
<td><strong>9. HYDRATION</strong></td>
<td><strong>10. EMERGENCY SHELTER</strong></td>
</tr>
<tr>
<td>Water and water treatment supplies</td>
<td>Tent and tarp</td>
</tr>
</tbody>
</table>
Your Cell Phone is...

- **NOT** a light source
- **NOT** a map
- **NOT** a survival kit
- **NOT** always going to have reception

*Do Not* rely on your cellphone. It most likely will not work!

https://www.nps.gov/articles/gtgemergencyplan.htm
What can I do to help?.....

Can your organization provide trained, licensed and skilled emergency response providers (EMT, WFR, etc)? *(understand your states Good Samaritan Laws)*

Can your organization implement a local medical advisor to establish protocols and procedures for your staff? *(ie – epi / Benadryl for anaphylaxis)*

Can your organization provide life saving and inexpensive tools such as tourniquets?

Can you include in your trip planning medical Information such as triage tags for each client that includes allergies, medications, medical information, weight + gear weight for possible flights?
After Action Review

What was planned?
- Objectives and expected outcomes.

What actually happened?
- Identify effective and non-effective performance.
- Review any non-SOP actions or safety concerns.

Why did it happen?
- Discuss reasons for any ineffective or unsafe performance and concentrate on WHAT happened, not WHO is responsible.

What can we do next time?
- Determine how to apply lessons-learned during the next incident.
Questions?

Jay Shields
(360)460-6702
jay_shields@nps.gov