

# Reframing HRO A Focus on Behavior



**Sponsored by the  
Fire and Aviation Directorate  
Division of Fire Operations**

**March 13-15, 2013**

**Boise, ID**



## ABSTRACT

In March 2013, the Bureau of Land Management (BLM) Fire and Aviation Directorate's Division of Fire Operations hosted a three-day training session on high reliability organizing (HRO). National, state, and unit level fire managers from throughout the BLM met in Boise, Idaho to build upon the success of the 2010 effort: *High Reliability Organizing – What It is, Why It Works, How to Lead It*.

The training focused on building highly reliable BLM wildland fire organizations at the national, state, and district levels by preparing the participants to extend behaviors and practices associated with high reliability throughout their organizations.

This publication is intended to summarize the high points of the training session and to document the actions BLM fire managers plan to pursue within their organizations to create more highly reliable organizations.



*Steve Ellis, Idaho State Director, providing opening remarks*

## INTRODUCTION

In an effort to build upon the success of the 2010 HRO training sessions, BLM fire leaders from across the nation gathered in an effort to learn ways of making high reliability practical, common in BLM fire operations, and sustainable over time.

The training was conducted in workshop format with special presentations by and assistance of high reliability organizing and risk management experts supplemented with small group discussion and activities.

Tim Murphy

**Assistant Director, Fire and Aviation**

- ❖ Firefighter and public safety remains our core value.
- ❖ If ever there was a time for a decision to increase our awareness, to maintain, renew and refresh our ability to look up and around, look for small errors before they line up to be large problems, the time is now.
- ❖ Fire leaders and firefighters are going to be asked to redeem our responsibilities with fewer resources at a time when fire operations are becoming a riskier proposition.
- ❖ Several factors are conspiring to make our work more difficult and our operating environment riskier: budgets, invasive annuals, climate change, and the “tyranny of the urgent.”
- ❖ High reliability organizing is the foundation to managing risk in BLM Fire and Aviation. These are not just words; these are commitments that we’ve made and commitments we’ll keep.



***BLM FIRE & AVIATION STRATEGY PLAN***

***Goal 5 – A High Reliability Fire and Aviation Organization***

***Objectives***

1. Have a fire culture and processes that reduce system errors.
2. When failures occur responses are effective and resilient.
3. Have fire and aviation leaders that understand and promote HRO principles.
4. Have a reward system in place that supports HRO principles.
5. Have all employees understand that safety is the priority BLM fire management objective.

## REFRAMING HRO: FIVE BEHAVIORAL LESSONS LEARNED

Mike DeGrosky, Guidance Group Inc., challenged fire leaders to:

- ❖ Take reliability science and the research that has been done to separate high reliability organizations from typical organizations in order to know and understand how human error and human performance work within complex organizations operating in complex, high-risk environments.
- ❖ Focus on and teach behaviors associated with high reliability and applying those behaviors consistently and well to ultimately produce exceptional outcomes.



### FIVE BEHAVIORAL LESSONS LEARNED

1. Look for weak signals of failure.
2. Consider alternatives and question assumptions.
3. Focus on the frontline.
4. Allow leadership and decision making to migrate.
5. Recover quickly from adversity.
  - a. Contain.
  - b. Recover.

### WORK GROUP: SESSION ONE

Group members reviewed the “small wins” from their 2010 state commitments.

- ❖ What succeeded and is working well? Specifically, what did we do that enabled our organization to operating in a highly reliable manner?
- ❖ Why did those efforts succeed? Specifically, why did they move us toward more reliable operations?
- ❖ What efforts did we fail to gain traction on?
- ❖ Why did those efforts not move us toward more reliable operations?
  - To achieve high reliability in BLM fire operations, will require achieving high reliability at the module level. So please give these questions some thought.
  - At the module level, what factors seem to be most helpful for successfully implementing practices associated with high reliability?
  - What module level factors seem to hinder high reliability practices?

## **REFRAMING HRO: A FOCUS ON BEHAVIOR**

### **JAHN AND BLACK'S RESEARCH**

Dr. Jody Jahn presented recent research conducted with Dr. Anne Black, U.S. Forest Service Rocky Mountain Research Center, regarding high reliability activities in the wildland fire community.

Jahn and Black's research indicated the importance of implementing practices associated with high reliability at the crew level. Dr. Jahn offered a few key practical conditions that enable or hinder high reliability practices and suggested strategies for working with, rather than against, these conditions.



- ❖ Workgroups are crucial.
- ❖ Supervisors set the stage for the practices.
- ❖ Practices shape the culture.
- ❖ Ongoing activities become “normal” and “acceptable.”

### **OBSTACLES TO IMPLEMENTING PRACTICES ASSOCIATED WITH HIGH RELIABILITY**

- ❖ Generational tensions
  - Paramilitary mindset (limited information available).
  - Learning/questioning mindset (information readily available).
- ❖ Hierarchy
  - History of top-down command.
  - High reliability practices empower from bottom-up.

### **POSSIBLE WORKGROUP ELEMENTS TO ASSESS**

- ❖ Hierarchy
  - Rigid or flexible? For what purpose?
- ❖ Function of the workgroup
  - How is crew typically used?
- ❖ Staffing patterns
  - Together versus dispersed?
- ❖ Work styles
  - Independent versus interdependent?
- ❖ Mix of experience
  - Is proactive training more (or less) necessary?
- ❖ Turnover
  - Do people stick around?
  - Crop of new folks every year?
- ❖ Workgroup collective identity
  - How do they see themselves?
  - Points of pride or uniqueness?
  - What reputation is upheld?

## **HOW TO ASSESS WORKGROUPS AND INTRODUCE NEW PRACTICES**

- ❖ Practical conditions
  - Take stock of your workgroups and how you use them.
  - Be realistic about what can and cannot be changed.
  - Look for small and/or likely ways to introduce new practices.
- ❖ Know your audience and frame the message.
- ❖ Talk with workgroups separately.
- ❖ Involve workgroup overhead in deciding what will work best for them.
  - Include all levels of crew overhead (squad leader and up).
- ❖ Frame the practices in line with workgroup goals (and identities).

<b>FOUR LIKELY WORKGROUP TYPES GIVEN REALITIES OF WILDLAND FIRE</b>	
<b><i>Less-Established</i></b>	<b><i>Chain-of-Command Driven</i></b>
<p><i>Stable conditions:</i></p> <ul style="list-style-type: none"> <li>• Strict hierarchy.</li> <li>• Unequal relationships.</li> <li>• Mix of experience.</li> <li>• Low connectedness.</li> <li>• Autonomy for experienced members.</li> </ul> <p><i>Suggestions for change:</i></p> <ul style="list-style-type: none"> <li>• Develop cohesion/trust through practices that bring people together.</li> <li>• Promote mentorship of less experienced members by more experienced members.</li> </ul>	<p><i>Stable conditions:</i></p> <ul style="list-style-type: none"> <li>• Strict hierarchy.</li> <li>• Unequal relationships.</li> <li>• Staffed together.</li> <li>• Mix of experience.</li> <li>• Interdependent work style.</li> <li>• High connectedness.</li> <li>• Proactive communication.</li> </ul> <p><i>Suggestions for change:</i></p> <ul style="list-style-type: none"> <li>• Involve all levels of overhead.</li> <li>• Establish accepted communication patterns that work with existing chain of command.</li> <li>• New routines are likely to succeed (e.g., daily debriefs/AARs).</li> </ul>
<b><i>Independent Professionals</i></b>	<b><i>High-Performing</i></b>
<p><i>Stable Conditions:</i></p> <ul style="list-style-type: none"> <li>• Flexible hierarchy.</li> <li>• Equal relationships.</li> <li>• High experience.</li> <li>• High autonomy, low communication.</li> <li>• Possible pressure to uphold identity.</li> </ul> <p><i>Suggestions for change:</i></p> <ul style="list-style-type: none"> <li>• Develop reflective practice to understand own experiences.</li> <li>• Sharpen skills at <i>obtaining</i> (not just asking for) input from others.</li> </ul>	<p><i>Stable Conditions:</i></p> <ul style="list-style-type: none"> <li>• Flexible hierarchy.</li> <li>• Equal relationships.</li> <li>• High experience.</li> <li>• Use, share, develop expertise.</li> <li>• High connectedness.</li> <li>• Proactive communication.</li> </ul> <p><i>Suggestions for change:</i></p> <ul style="list-style-type: none"> <li>• Individual adoption, internalization of the practices.</li> <li>• Establish/maintain routines for sharing knowledge.</li> </ul>

## HOW HRO ENHANCES THE RISK MANAGEMENT PROCESS

Michelle Ryerson, BLM Safety Manager, provided attendees with a practical application of how high reliability organizing enhances risk management.



### KEY POINTS

- ❖ Risk management is not a safety program. Risk management is a key component of an overall safety and health program.
- ❖ Safety is a by-product of effective risk management.
- ❖ Risk management is a deliberative and dynamic “process,” while HRO is how organizations behave; both are continuous.
- ❖ Risk management and HRO are not mutually exclusive.
- ❖ Applied HRO principles enhance risk management and result in higher levels of reliability.
- ❖ Risk is a function of probability and consequence.
  - HRO behaviors can decrease the probability of an accident and enhance the overall process.



### **STEPS 1 AND 2: IDENTIFY AND ASSESS HAZARDS**

#### *PREOCCUPATION WITH FAILURE*

- ❖ Assume you will be surprised and identify potential hazards that may be associated.

#### *DEFERENCE TO EXPERTISE*

- ❖ Seek input and expand your vision.

#### *RELUCTANCE TO OVER SIMPLIFY*

- ❖ Question and validate assumptions.
- ❖ Avoid lumping hazards.

### **STEP 3: DEVELOP CONTROLS AND MAKE RISK DECISIONS**

#### *RELUCTANCE TO OVER SIMPLIFY*

- ❖ Decision should not be based on “that’s how we’ve always done it.”

#### *SENSITIVITY TO OPERATIONS*

- ❖ Control measures focus on protecting end user.
- ❖ Ask key operational questions.

#### *DEFERENCE TO EXPERTISE*

- ❖ Promote “upward voice.”
  - Empower firefighters to say something “when” they see something.

### **STEP 4: IMPLEMENT CONTROLS**

#### *SENSITIVITY TO OPERATIONS*

- ❖ Rely on the “operators” to implement the controls.

### **STEP 5: SUPERVISE AND EVALUATE**

#### *DEFERENCE TO EXPERTISE*

- ❖ Rely on frontline supervisors to provide oversight and carry out control measures.
- ❖ Seek out impacts and/or unintended consequences and adjust as necessary.
  - What is and is not working?

#### *COMMITMENT TO RESILIENCE*

- ❖ Seek immediate input/feedback to:
  - Identify weak signals.
- ❖ Empower supervisors to make immediate adjustments to recover quickly.
- ❖ Evaluate and adjust to absorb/stretch—not collapse.
- ❖ Develop contingencies.
- ❖ Evaluate, learn, improve, and share.

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**Risk management is intended to minimize the number of injuries or fatalities experienced by wildland firefighters.**

*(Interagency Standards for Fire and Fire Aviation, Chapter 7, p. 1)*

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## LEADERSHIP AND HRO – BECOMING THE CULTURE WE WANT

One key to changing culture is to recognize the relationship between leadership and HRO.

- ❖ HRO principles enhance an individual's leadership approach.
- ❖ BLM's HRO vision requires leadership to emerge at all levels of the organization.

### VIEWS OF LEADERSHIP

Mike DeGrosky challenged participants to move from a conventional view of leadership where the leader is responsible for decisions, risk management, and communication creating the potential for a single point of failure to an adaptive leadership model.

#### **ADAPTIVE LEADERSHIP**

The adaptive leadership model contends that individuals working in high-risk, dynamic, complex environments possess following:

- ❖ Ability to learn.
- ❖ Ability to change.
- ❖ Ability to discern.

Specifically, leaders must be able to:

- ❖ Detect changes in environment.
- ❖ Recognize and assimilate new information and apply it to a new end.
- ❖ Respond quickly to changes in environment and take advantage.
- ❖ Understand actors and relationships.
- ❖ Know when to act.
- ❖ Improve the fit between organization and environment.



#### **CHANGING CULTURE**

- ❖ Role modeling: Be the change you want to see in the world.
- ❖ Keep it simple: Make it easy to follow.
- ❖ Nurture early followers.
- ❖ Be public: Followers see followers.
- ❖ Be strategic: Pursue a tipping point.
- ❖ If not the originator, be the first follower.
- ❖ Courageously follow and show others how.
- ❖ Leaders create the culture. Culture creation is the essence of leadership.

#### **CULTURAL BARRIERS**

- ❖ Academic skepticism.
- ❖ Bias for action ("can-do" attitude).
- ❖ Organizational dysfunction.



## ENHANCING HIGH RELIABILITY THROUGH KEY OPERATIONAL QUESTIONS

The key operational question approach is an effective means of instilling HRO principles into fire operations.

- ❖ What do we want to avoid?
- ❖ What is the worst that could happen?
- ❖ What do we want to watch for?
- ❖ What are we not seeing?
- ❖ What are we doing?
- ❖ What should we be doing?
- ❖ What can we do about that now?
- ❖ Who has the best handle on this?

## ENHANCING HIGH RELIABILITY DURING BRIEFINGS AND AFTER ACTION REVIEWS

Leaders have largely shared their leader's intent during the briefing phase of planned operations. To enhance the effectiveness of after action reviews (AARs) Mike DeGrosky challenged participants to:

- ❖ Encourage individuals to develop clear leader's intent.
- ❖ Incorporate leader's intent in the planning phase.
- ❖ Make communicating leader's intent an interactive process.
- ❖ Be clear on the purpose of our learning orientation—how we can be learning organizations.
- ❖ Ensure briefings are interactive and adaptable.
- ❖ Conduct before action reviews (BARs or pre-mortems) for planned activities.
- ❖ Use AARs to modify behavior.

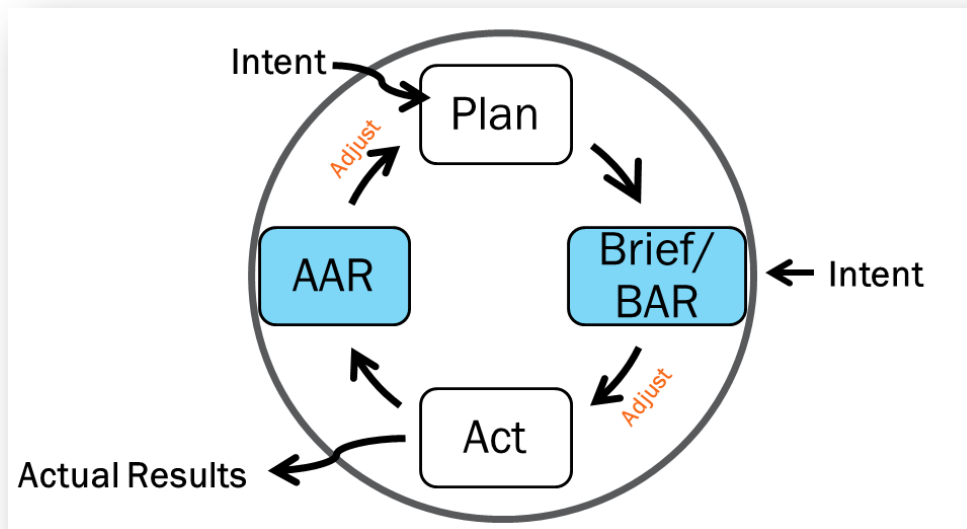
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*The whole purpose of doing an after action review is to adjust our behavior and improve our planning the next time. ~ Mike DeGrosky*

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*Adapted by Michael T. DeGrosky – Guidance Group, Inc. from Signet Research & Consulting LLC, 2010*

## CLOSING REMARKS ~ TIM MURPHY

*How do I define ultimate success? We leave a legacy to BLM of HRO as a strong and durable feature—a thread through the fabric of everything we do in Fire and Aviation. ~ Tim Murphy*

Tim Murphy reiterated his appreciation to states for their participation in HRO training. Additionally, Tim commended states for adapting the training in ways each state believes will work best for their culture.

Tim challenged participants to be the force-multiplier for change and weaving HRO into their organizations.

### P.L.O.W.S.

*(Created by Craig Cunningham and implemented by the Ruby Mountain Hotshots during the 2011 fire season)*

P.L.O.W.S. is an alternative to the standard after action review (AAR) emphasizing safety in a learning environment. Information as it pertains to facilitating an AAR in the standard format is still relevant and applicable.

#### **PLAN:**

- State the plans that were in place. Follow up by asking any relevant questions.
- Did everybody know what the plan was?
- Was the plan sufficient to accomplish the objectives?

#### **LEADERSHIP:**

- What leadership was in place?
- Was the chain of command clear?
- Was leader's intent communicated and sufficient?

#### **OBSTACLES:**

- What obstacles were encountered and how were they mitigated?

#### **WEAKNESSES:**

- What were weaknesses that should be improved upon?
- How will they be improved?
- Is follow-up action required?

#### **STRENGTHS:**

- What were strengths that should be sustained?
- How will they be sustained?

#### **ADDITIONAL QUESTIONS:**

- Are there any additional questions or topics that should be discussed?



*Tim Murphy presenting Craig Cunningham with the 2012 National Safety Award*

## WHAT NEXT - STATE COMMITMENTS

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### ALASKA

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**TASK #1: Educate and refresh HRO principles.**

- Present refresher on principles to Alaska Fire Service (AFS) management team.
- Facilitate discussion for late adopters.

*Measure of Success:* Completion of subsequent tasks.

*Responsibility of:* HRO Working Group

*Start/End Dates:* March 15, 2013/April 2, 2013

**TASK #2: Perform self-assessments of HRO principles by branch and zone.**

- Utilize AAR or P.L.O.W.S. format to perform self-assessments of HRO principles.

*Measure of Success:* Task completion and participation.

*Responsibility of:* Branch and Zone Chiefs

*Start/End Dates:* April 15, 2013/May 15, 2013

**TASK #3: Incorporate key operational questions into AFS management team discussions and decisions.**

- Work group will introduce the concept/questions at the next management team meeting.

*Measure of Success:* The continued incorporation of these questions into our management team decision-making process. Good decisions → better decisions.

*Responsibility of:* Tami DeFries and Dave Whitmer

*Start/End Dates:* March 26, 2013/Ongoing

**TASK #4: Incorporate HRO principles as checklist items in annual preparedness reviews.**

- Create new documents.

*Measure of Success:* Task completion.

*Responsibility of:* Bill Cramer with HRO Working Group review

*Start/End Dates:* March 25, 2013/May, 15, 2013

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### ARIZONA

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**TASK #1: Foster interdistrict cross training of fire management personnel.**

- Develop a site visit schedule to enable fire management personnel to gain knowledge of adjoining districts to back-fill during emergencies and high tempo periods.
- Develop a task sheet for use by fire management personnel during site visits.

*Measure of Success:* Site visits occur with a minimum of one person from each district conducting a site visit of another.

*Responsibility of:* Terry Swinscoe and Brian Achziger

*Start/End Dates:* April 2013/October 2013

**TASK #2: Incorporate HRO “Talk” into conference calls/meetings.**

- Identify small successes during state FLT conference calls, weekly DLT meetings, and district fire meetings.

*Measure of Success:* Conduct an evaluation during the fall meeting to determine whether or not HRO “Talk” was incorporated into conference calls and meetings.

*Responsibility of:* State Office and district fire and aviation staff

*Start/End Dates:* April 2013/Ongoing; evaluate at fall meeting

**TASK #3: Conduct HRO introductory training for district fire staffs.**

- Develop a training schedule and present to districts.
- Conduct HRO introductory training for district fire staffs.

*Measure of Success:* Introductory training raining delivered to all districts.

*Responsibility of:* Terry Swinscoe with assistance of the district fire staff

*Start/End Dates:* April 2013/May 2013

**TASK #4: Conduct before action reviews (BARs)/pre-mortems for every planned event.**

- Implement the use of BARs/pre-mortems for every planned event.
- Place BAR/pre-mortem documentation on the SharePoint site. (Optional)

*Measure of Success:* Each district will have completed at least one BAR/pre-mortem on a planned event by the fall meeting.

*Responsibility of:* Each district headed up by fire management

*Start/End Dates:* March 2013/Ongoing; revisited at fall meeting

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## CALIFORNIA

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**TASK #1: Develop and roll out statewide vision/expectations.**

- Draft and distribute by pre-fire season mission letter from the chief.
- Present a statewide pre-fire season assessment/HRO message to the field.
- Conduct a video teleconference broadcast after preparedness reviews.

*Measure of Success:* Task completion.

*Responsibility of:* Paul Bannister

*Start/End Dates:* March 2013/June 18, 2013

**TASK #2: Reinforce the five HRO guiding principles.**

- Redefine the five HRO guiding principles into task-specific principles.
- Disseminate through the chief's mission letter, preparedness review interaction, and station-level HRO principle poster.

*Measure of Success:* Post-season follow-up on task-specific principles indicates integration.

*Responsibility of:* Fire leadership from top down to first-line supervisors

*Start/End Dates:* March 2013/Ongoing

**TASK #3: Place a ground-level HRO principle poster at each station.**

- Design, print, and send to stations a ground-level HRO principle poster by May 6, 2013.

*Measure of Success:* Posters are used and HRO principles are being implemented at the ground level.

*Responsibility of:* Tim Jones

*Start/End Dates:* March 2013/Review at post-season meeting

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## COLORADO

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**TASK #1a: Embed and instill HRO concepts and actions into first-line module supervisors and crewmembers through preparedness reviews.**

- Provide clear leader's intent regarding HRO.
- Incorporate HRO concepts into drills and checklists.
- Review unit commitment to HRO checklists.

*Measures of Success (all tasks):*

- Conduct exit interviews with fire staff to determine HRO understanding, use, and process.
- Monitor crew throughout season.
- Conduct an annual employee survey to determine program performance.

*Responsibility of:* CSO and local units

*Start/End Dates:* March 2013/FY13

**TASK #1b: Embed and instill HRO concepts and actions into first-line module supervisors and crewmembers through field simulations and improvisations.**

- Provide clear leader's intent regarding HRO.
- Incorporate HRO concepts into simulations and improvisations.
- Incorporate HRO concepts into BARs and AARs for simulations and improvisations.
- Develop TDGS-type scenario that applies an HRO principle for use in sand table exercises.

*Responsibility of:* Module leaders

*Start/End Dates:* March 2013/Spring 2013

**TASK #1c: Embed and instill HRO concepts and actions into first-line module supervisors and crewmembers through engine academy course delivery.**

- Provide clear leader's intent regarding HRO.
- Incorporate HRO into unit instruction.
- Develop and present a formal presentation on HRO basics.
- Integrate HRO concepts into BARs and AARs.

*Responsibility of:* Lead and unit instructors and CSO

*Start/End Dates:* March 2013/Ongoing

**TASK #1d: Embed and instill HRO concepts and actions into first-line module supervisors and crewmembers through fire refreshers and Agency Administrator pre-season meeting.**

- Provide clear leader's intent regarding HRO.
- Incorporate HRO concepts into annual fireline safety refreshers and the Agency Administrator pre-season meeting.

*Responsibility of:* Unit/Zone FMO

*Start/End Dates:* March 2013/Spring 2013

**TASK #1e: Embed and instill HRO concepts and actions into first-line module supervisors and crewmembers through Rocky Mountain Area (RMA) training.**

- Provide clear leader's intent regarding HRO.
- Incorporate HRO concepts into RMA training units.

*Responsibility of:* Geographic Area Training Representatives

*Start/End Dates:* March 2013/End of 2014 training season

**TASK #1f: Embed and instill HRO concepts and actions into first-line module supervisors and crewmembers through programs such as 6 Minutes for Safety and RMA broadcasts.**

- Provide clear leader's intent regarding HRO.
- Incorporate HRO concepts into programs such as 6 Minutes for Safety and RMA broadcasts.

*Responsibility of:* CSO, U.S. Forest Service, units

*Start/End Dates:* March 2013/FY13

**TASK #2: Reinforcement of ongoing HRO efforts in BLM Colorado.**

- Ensure all delegation for incidents, reviews, and investigations include a tie back to HRO. (1)
- Reinforce HRO concepts within the operational world. (2)
- Continue to integrate HRO concepts into the administrative world. (3)
- Reinforce HRO principles through day-to-day activities such as weekly FMO calls and daily briefings. (4)

*Measures of Success:*

- Review of all 2013 delegations indicates a tie back to HRO.
- Management monitoring of ongoing incident operations indicates HRO reinforcement.
- A review of morning briefings and conference call notes indicates HRO reinforcement.

*Responsibility of:* (1) State and unit FMOs; (2 & 3) All fire management; (4) State and unit FMOs and all fire management

*Start/End Dates:* March 2013/Ongoing

**TASK #3: BLM Colorado to provide leadership for RMA cooperators, IMTs and others involved in wildland fire response to incorporate risk management and HRO concepts into day-to-day activities.**

- Encourage interagency executives at the highest levels to embrace HRO concepts and provide strong, regularly expressed leader's intent to Agency Administrators and other leaders in the field. (1)
- Include HRO concept reinforcement during WFDSS decision-making training for Agency Administrators. (2)
- Include HRO concepts into AOP discussions and agreements. (3)
- Include HRO presentations and discussions at IMT meetings and sectional breakouts. (4)

*Measure(s) of Success:*

- RMA IMTs regularly discuss and use HRO principles and cultures during incident operations.
- Each unit documents pre-season discussion with line officers in the use of key operational questions during the WFDSS process.
- Twenty percent (20%) of all 2014 AOPs relate HRO principles to cooperators.

*Responsibility of:* (1) State FMO, CSO staff, unit and zone FMOs; (2 & 3) State FMO, CSO staff, unit FMOs; (4) State FMO, CSO staff, and BLM Colorado IMT Command and General Staff

*Start/End Dates:* March 2013/(1) Ongoing; (2 & 3) spring 2013; (4) April 2013 – spring IMT meeting

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## IDAHO

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**TASK #1: Create a living communication plan with clear leaders' intent from the State FMO group and State leadership for presentation to the Idaho FOS group.**

- Communicate clear leader's intent—not demands—by developing a living communication plan with involvement of State Office Fire Staff, District FMOs, Idaho ILT and ILC.

*Measure of Success:* Task completion.

*Responsibility of:* Steve Shaw and Mike Morcom with assistance of Idaho Public Affairs— Draft creation; FMOs to provide edits

*Start/End Dates:* March 19, 2013/April 16, 2013 (draft); ongoing

**TASK #2: Deliver the living communication plan to the FOS group.**

- Highlight how Idaho's fire program presently implements HRO and identify areas for improvement.
- Consider sponsoring a staff ride (Point Fire) – To be determined.

*Measure(s) of Success:*

- FOS group embraces the communication plan.
- Energy exists toward action understanding HRO concepts and recognition of achievements occurs.

*Responsibility of:* To be determined

*Start/End Dates:* March 18, 2013/Fall ILT Meeting

**TASK #3: Develop a mechanism to support the “reporting” of weak signals.**

- Utilize technology to create easy, fast, efficient, available reporting tool(s) such as mobile application, Twitter, etc., to support the “reporting” of weak signals to promote and reinforce a reporting culture amongst the state fire program.

*Measure of Success:* Task completion.

*Responsibility of:* Idaho fire, public affairs officers, and technology experts

*Start/End Dates:* March 18, 2013/Spring 2014

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## MONTANA

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**TASK #1: Embed HRO “tones” into the Montana fire program mission statement.**

- Continue task force efforts to embed HRO “tones” into the Montana fire program mission statement.

*Measure of Success:* Creation of a highly visible mission statement embedded with HRO “tones” and referenced at all levels of the organization.

*Responsibility of:* Pat Harty, Eric Lepisto, Eric Fransted – Task Group

All FMOs/MT FLT – Approval

*Start/End Dates:* In progress/April 30, 2013 (pre-season meeting)

**TASK #2: Pursue inclusion of HRO principles on the State Director’s Priority List.**

- Educate managers at the pre-season meeting.

*Measure(s) of Success:*

- Recognition of HRO principles on the State Director’s Priority List.
- Managers and staff are aware of the HRO principles and incorporate them into their operations.

*Responsibility of:* Ken Schmid – State Office; FMOs - Districts

*Start/End Dates:* March 15, 2013/December 2013 (following FY14 Priority List release)

**TASK #3: Integrate the HRO philosophy into the culture.**

- Create a budget line item as an annual financial commitment to integrating HRO into the culture.
- Hold annual “sessions” such as staff rides, leadership camps, and dynamic speakers to further integrating the HRO philosophy.
- Make HRO a standing agenda item at fire meetings, guard schools, etc.

*Measure of Success:* Evaluations developed for “sessions” and after action reviews (P.L.O.W.S. format) indicate the HRO philosophy has been integrated into the culture.

*Responsibility of:* All members of the Montana fire program; Eric Fransted – budget line item (rotate development of session – MDOG, zones)

*Start/End Dates:* March 2013/Ongoing

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## NEVADA

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**TASK #1: Form a statewide, diverse group focused on HRO integration.**

- Develop and convey clear leader’s intent to a statewide, diverse group who will champion HRO integration at the district level.

*Measure of Success:* Task completion.

*Responsibility of:* Paul Petersen

*Start/End Dates:* March 14, 2013/April 30, 2013



**TASK #2: Develop ideas to integrate and reinforce HRO principles and champion HRO integration at the district level.**

- Gather information and develop practical, useful ideas for integrating HRO statewide.
- Champion HRO integration at the district level.

*Measures of Success:*

- Task completion.
- Products are desirable and within the leader's intent.

*Responsibility of:* HRO Group

*Start/End Dates:* April 30, 2013/June 15, 2013 (idea generation); ongoing (championing)

**TASK #3: Gain feedback on HRO integration effort and group function.**

- Create new feedback documents.

*Measure of Success:* Task completion.

*Responsibility of:* Paul Petersen and HRO Group members

*Start/End Dates:* March 25, 2013/May 15, 2013

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## NEW MEXICO

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**TASK #1: Update the EMT on HRO and ensure understanding.**

- Present the updated HRO concepts from the 2013 HRO training to the EMT.

*Measure of Success:* DMs and DSDs display understanding of what fire is doing and how it is applicable to them.

*Responsibility of:* Carl Gossard

*Start/End Dates:* March 18, 2013/May 2013

**TASK #2: Update fire personnel on the updated HRO concepts and information that HRO enhances current safety procedures and practices. (Kick off for Task #3.)**

- Make presentations during annual firefighter orientation meetings.

*Measure of Success:* Observe and evaluate application of HRO concepts by personnel throughout the fire season and during preparedness reviews.

*Responsibility of:* David Bott, Carl Gossard, FMOs and DMs

*Start/End Dates:* April 29, 2013/June 15, 2013

**TASK #3: Continue to emphasize the HRO guiding principles and concepts to local fire staff.**

- Present information as one of the topics at weekly briefings.

*Measure of Success:* FMOs will observe and evaluate incorporation by fire personnel into routine work processes.

*Responsibility of:* FMOs and local fire supervisors

*Start/End Dates:* Following firefighter orientations (June 2013)/Review at the conclusion of the 2013 fire season

**TASK #4: Provide HRO references at the local level.**

- Reissue 2010 Oregon HRO card as a poster.
- Add key operational questions and action review cycle as inserts to the New Mexico Operations Guide.

*Measure of Success:* Task completion.

*Responsibility of:* Carl Gossard, David Bott, DFMOs

*Start/End Dates:* March 18, 2013/Firefighter orientation (June 2013)

**TASK #5: Further develop and embrace the reporting aspect of a safety culture.**

- Educate fire personnel on reporting:
  - SAFENETs
  - Deficiencies
  - SAFECOMs
  - Lessons learned
- Create a SharePoint for near misses.

*Measure(s) of Success:*

- Increased understanding as demonstrated at preparedness reviews.
- End of season review indicates reporting increased.

*Responsibility of:* Carl Gossard, David Bott, DFMOs  
*Start/End Dates:* March 18, 2013/Reassess at end of fire season

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## FIRE AND AVIATION

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**TASK #1: Evaluate existing methods and documents such as the Risk Management Process in the IRPG, LCES and briefing checklist.**

- Create a clear, concise HRO process for common understanding and implementation at all levels of the organization.

*Measure of Success:* FOG validation.

*Responsibility of:* Fire Operations (FA300) – short-term, agency approach; long-term, incorporate into NWCG-sponsored products  
*Start/End Dates:* March 15, 2013/May 30, 2013 (initial phase)

**TASK #2: Integrate HRO into the Aviation Safety Program.**

- Provide clear Fire Director's leader's intent to Operations and Aviation Division Chiefs. (Assistant Director, F&A)
- Develop an HRO project plan which includes milestones, timelines, and measures of success

*Measure of Success:* HRO project plan created and implemented.

*Responsibility of:* Assistant Director, Fire & Aviation; Operations and Aviation Division Chiefs; Operations and Aviation Staff  
*Start/End Date:* March 18, 2013/April 30, 2013 (project plan); ongoing

**TASK #3: Modernize safety-related reporting tools.**

- Scope the requirements for a potential application for the SAFENET reporting system. (1)
- Move to modernize other reporting systems for equipment deficiencies, SAFECOM, etc. (2)
- Implement the applications for tablets, smartphones, and computers.

*Measure of Success:* Applications are deployed, adopted, and widely utilized.

*Responsibility of:* John Owens (FA300), IT Lead (FA200), and Tony Beitia (RMC)  
*Start/End Dates:* (1) March 18, 2013; (2) May 1, 2013/(1) April 30, 2013; (2) TBD

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## OREGON/WASHINGTON

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### **TASK #1a: Provide continuing education on HRO principles and risk management to Agency Administrators.**

- Present risk management and HRO PowerPoint presentation to Agency Administrators at the spring FALT.

#### *Measure(s) of Success:*

- Interaction with Agency Administrators and FMO group during presentation at FALT.
- Line is asking different levels of the organization about HRO principles.

*Responsibility of:* Shelby Gales, State Safety Lead

*Start/End Dates:* March 15, 2013/April 24, 2013

### **TASK #1b: Provide continuing education on HRO principles and risk management to Agency Administrators.**

- Facilitate quarterly discussions with RLT and FLT about HRO principles. (1)
- Develop an HRO library. (2)
- Develop a lesson plan. (3)

*Measure of Success:* Two quarterly meetings to measure the success of HRO discussion will have occurred by the fall FALT.

*Responsibility of:* SORO Leadership

*Start/End Dates:* HRO library end of April 2013/Ongoing

### **TASK #1c: Provide continuing education on HRO principles and risk management to Agency Administrators.**

- Integrate HRO principles into local fire management course and M-581 course consolidation rewrite.

*Measure of Success:* HRO principles are included in the course rewrite.

*Responsibility of:* Nancy Ashlock

*Start/End Dates:* April 21, 2013/December 27, 2014

### **TASK #1d: Provide continuing education on HRO principles and risk management to Agency Administrators.**

- Develop leader's intent for State FMO and State Director to present to RF and SD.
- FMOs to provide bullet points to State FMO and State Director to flush out leader's intent.

*Measure of Success:* Dialogue begins at spring FALT.

*Responsibility of:* SORO Staff

*Start/End Dates:* March 2013/April 2013

### **TASK #2a: Increase awareness of HRO principles to all fire personnel, including and across all levels of firefighters.**

- SORO leadership will provide leader's intent to hotshots, rappel group, captain group and module leaders, empowering these groups to relay HRO principles to our boots on the ground.

*Measure of Success:* Groups will have a strong leader's intent to create their own action plans.

*Responsibility of:* SORO Leadership

*Start/End Dates:* March 2013/March 2013

### **TASK #2b: Increase awareness of HRO principles to all fire personnel, including and across all levels of firefighters.**

- Develop individual action actions to increase awareness of HRO principles to our boots on the ground.

*Measure of Success:* Action plans submitted to FMO by end of calendar year.

*Responsibility of:* Hotshots, rappel group, captain group and module leaders

*Start/End Dates:* March 2013/December 2013

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## UTAH

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### **TASK #1: Hold statewide HRO training.**

- Facilitate HRO training in 2013 designed to present the HRO concept and guiding principles to managers and solidify or refresh HRO with those previously trained.
- Host a staff ride.
- Host line-of-duty-death (LODD) training.

*Measure(s) of Success:*

- Feedback from attendees.
- Attendance record
- Success of HRO in future operations and fire season.

*Responsibility of:* Utah Fire Leadership Team (FLT) will facilitate, Utah State Office – Fire will pay for contractor, travel, per diem and travel cap.

*Start/End Dates:* May 1, 2013/May 5, 2013

### **TASK #2: Add HRO language to Incident Commander delegations.**

- Draft verbiage at the Utah FLT meeting to incorporate at the local Incident Command Type (ICT) 5/4/3 level and include in ICT 2/1 delegations of authority.

*Measure of Success:* HRO language included in the signed delegations.

*Responsibility of:* Utah FLT

*Start/End Dates:* March 28, 2013/June 7, 2013

### **TASK #3: Develop a statewide HRO/risk management award.**

- Develop process for peer nomination award that allows people to nominate individuals based on the HRO principles that made positive contributions to Utah BLM and distribute through the directive process. (Utah State Office)
- Design a traveling trophy for statewide recognition. (Utah FLT)
- Review nominations and select award recipient. (Utah FLT)

*Measure(s) of Success:*

- Number of nominations.
- Quality of nominations.
- First award given.

*Responsibility of:* Utah State Office & Utah FLT

*Start/End Dates:* Rollout – spring fire meeting 2013; award presentation – post-fire season meeting/Ongoing

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## WYOMING

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### **TASK #1: Educate and further promote HRO at the single-digit GS (“doers”) level.**

- Include an HRO terminology and principles sheet in the Wyoming Operations Guide.
- Introduce the P.L.O.W.S. after action review method to “doers” and include in Wyoming Operations Guide.
- Incorporate HRO principles into locally-delivered L-180 and L-280 courses and at the Rocky Mountain Engine Academy.
- Incorporate HRO principles into orientation and training week.
- Identify and point out HRO principles that occur daily and already exist with the program (further framing).

*Measure(s) of Success:*

- HRO is being used during briefings (e.g., P.L.O.W.S.).
- Mid-level “doers” are teaching HRO concepts to new employees.

*Responsibility of:* FMOs, State Office fire staff

*Target Audience:* Engine bosses, lead crewmembers, helicopter supervisors, FOSs, AFOSs, fuels technicians, dispatch

*Start/End Dates:* March 14, 2013/Ongoing with yearly reflection or evaluation

**TASK #2: HRO-Up – Further “frame” and educate line officers and district leadership/managers on HRO principles.**

- Present HRO principles at pre- and post-fire season meetings.
- Spotlight current examples of HRO principles at work and being implemented.
- Provide HRO continuing education at District/State Office team meetings.

*Measure(s) of Success:*

- Increased use of HRO terminology from line officers.
- Use of HRO principles and terminology in disciplines outside of fire.
- Attendance and participation during presentations.

*Target Audience:* Line officers and senior leadership

*Responsibility of:* District FMOs – Chuck Russell, Kirk Storm and Frank Keeler;  
State Office fire staff – Paul Hohn and Angie Foster

*Start/End Dates:* April 17-18, 2013 spring pre-season fire meeting/2014 spring pre-season fire meeting

**TASK #3: Follow-up to the 2010 commitments (HRO gut check)**

- Revisit the existing Wyoming HRO action plan spreadsheet.
- Host a Little Venus staff ride on May 23, 2013; participants to include the WY FLT and expanded WY FLT.
- Implement a tracking method for small successes: each DFMO and SFMO will keep and maintain a book of small successes (BOSS book demonstrated by Chick Russell from 2010 to present) documenting notable small successes.
- Continue with the WY fire leadership award and Wyoming Fire Fit program (both programs currently support HRO principles).
- Utilize P.L.O.W.S. in FLT meetings
- Develop and post HRO materials in work areas.
- Make HRO a standing agenda item during FLT meetings to evaluate efforts, progress, and setbacks.
- Perform an evaluation of small failure reporting to determine if reporting has increased.

*Measure(s) of Success:*

- A review of the Wyoming HRO action plan was conducted.
- Utilization of the BOSS book throughout the organization.
- Notable changes in HRO-related behaviors exhibited by target audience.
- The number of small failures reports increased suggesting a culture of reporting.

*Target Audience:* State Office fire staff and District FLT

*Responsibility of:* SFMO, SAFMO, DFMOs, State Fuels Lead, DAFMOs

*Start/End Dates:* April 2013 Wyoming pre-season fire meeting/Reevaluate at the 2014 Wyoming pre-season fire meeting

## HRO RESOURCES AND TRAINING SESSION DOCUMENTS

The Wildland Fire Lessons Learned Center website has an abundance of material on HROs in fire operations at <http://wildfirelessons.net/HRO.aspx>.

Documents for the 2013 HRO training session can be downloaded via the BLM HRO neighborhood library under “Public Files” on MyFireCommunity.net at <http://www.myfirecommunity.net/NeighborhoodLibrary.aspx?ID=1133>.

In addition, the literary works and research of the following subject matter experts were instrumental to the success of the training:

Dr. Karlene Roberts, Professor Emeritus Haas Management of Organizations Group  
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Dr. Karl E. Weick, the Rensis Likert Distinguished University Professor of Organizational  
Behavior and Psychology

Dr. Kathleen Sutcliffe, University of Michigan Business School

Dr. Anne Black, social science analyst, U.S. Forest Service Rocky Mountain Research  
Station

Dr. Brooke McBride, post-doctoral researcher, University of Montana

Signet Research & Consulting LLC,  
[http://www.signetconsulting.com/methods\\_stories/proven\\_methods/after\\_action\\_reviews.php](http://www.signetconsulting.com/methods_stories/proven_methods/after_action_reviews.php)

## RECOMMENDED HRO RESOURCES

*Build a Healthy Safety Culture Using Organizational Learning and High Reliability Organizing*,  
David Christenson\*

High Reliability Organizing website, <http://high-reliability.org/>

*Leading Connection Development and Knowledge Flow to Increase High Reliability Organizing  
Implementation Effectiveness*, David Christenson\*

*Managing the Risks of Organizational Accidents*, James Reason

*Managing the Unexpected*, Karl E. Weick and Kathleen M. Sutcliffe

*Morning Briefings: Boring or Effective—How Our Conversations at Briefings Can Reinforce  
“Deference to Expertise*, Jonetta T. Holt\*

*New Challenges to Understanding Organizations*, Karlene H. Roberts

*Streetlights and Shadows: Searching for the Keys to Adaptive Decision Making*, Dr. Gary A.  
Klein

\* Available on BLM HRO public library, link above

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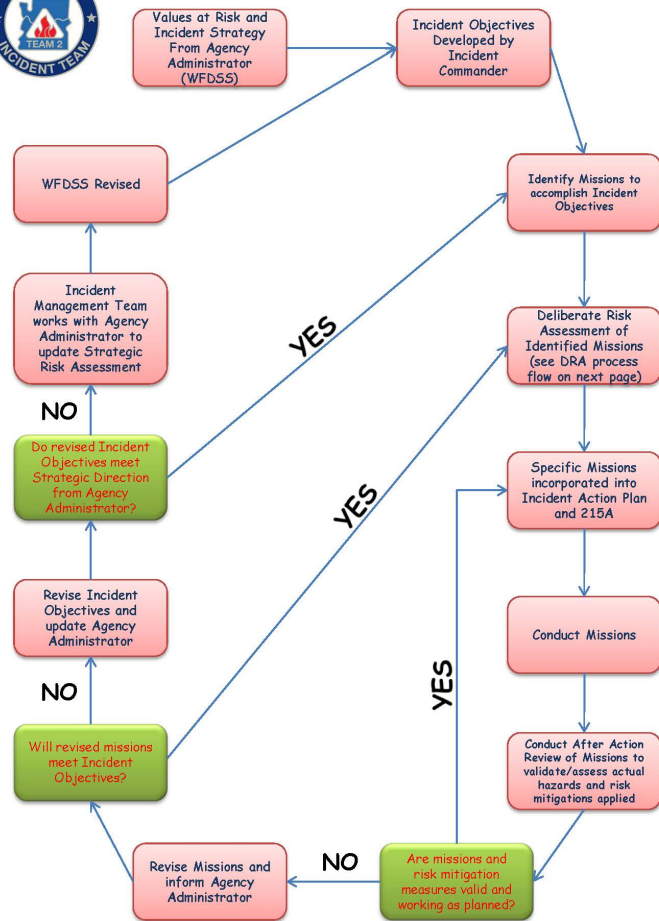
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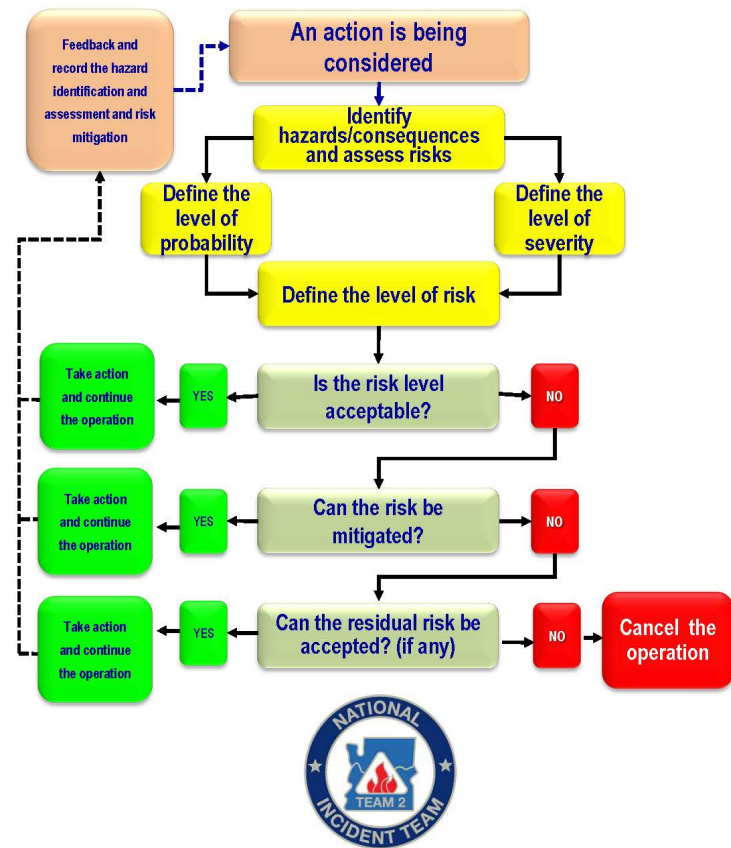




PNW2 Risk Management Process Flow Chart



# Risk Management Process



Mike Morcom, Idaho State Fire Management Officer presented the Pacific Northwest 2 IMT Deliberate Risk Analysis Process. Complete information can be found via the BLM HRO neighborhood library under "Public Files" on MyFireCommunity.net at <http://www.myfirecommunity.net/NeighborhoodLibrary.aspx?ID=1133>.