

Third International Workshop

New Orleans, Louisiana 2009, Deauville, France 2007, Ontario, California 2006

High Performance and High Reliability: Building Performance-Based Organizations

The Third International Biannual Conference of High Reliability Researchers and Practitioners



Sponsored by: The Wildland Fire Lessons Learned Center
The Marriott School of Business, Brigham Young University
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Introduction

Virtually all modern organizations have exposure to risks that threaten their ongoing viability. High Reliability Organizing (HRO) is the process of managing organizations to allow them to successfully deal with these threats. The principles of HRO used to identify risk and threat and then develop an effective response are similar across different types of organizations and industries. The next biannual international gathering of HRO researchers and practitioners will take place at the University of New Orleans in New Orleans, Louisiana on January 9-10, 2010.

The reason for this gathering is not only to deepen our knowledge of high performance and high reliability in various organizations, but to also increase our network connections of excellence, to attune methodologies, and to establish working groups that will continue these themes over time.

The central theme for this workshop is about intervention strategies for developing the organization towards higher mindfulness, performance, and reliability. We have found that many interventions, such as Lean and Six Sigma, do not address collective mindfulness and will decrease the organization's variability. Increased variability, as a means toward organizational strength and agility, allows the organizations to stay in a high state of performance and reliability for a longer period. HRO aims to make all members of the organization generative toward problem solving: they keep on learning, they keep on improving, they keep on embedding mindful organizing in their systems, manuals, procedures, structures, interactions, training, recruiting, etc.

We define reliability as the ability to maintain performance during complexity, uncertainty, and the unexpected. Reliability is managing complexity. Reliability is decision making. Reliability is managing errors. Reliability is learning. Reliability is managing the unexpected. Most important, reliability is high-performance and building the reliable organization.

Workshop Objectives

1. Discuss internalizing and imposing high reliability organizing and safety culture. Describe the subtle signs of imposing these changes during education and training.
2. Identify the relationships between quality, reliability, and safety(the QRS Complex)?
3. Compare and contrast primary experience and primary research in preparing for the rare, catastrophic event.
4. Discuss the differences between naturalistic HROs and created HROs.
5. Describe how HROs are manifested at the levels of executive management, operations management, and field operations.

Honorable Guest Speakers:

Karl Weick, PhD, Stephen M. Ross School of Business, University of Michigan
Tom Mercer, ADM, USN (ret.) USS Carl Vinson
Karlene Roberts, PhD, Hass School of Business, UC Berkeley

Featured Guest Speakers:

Michelle Barton, PhD (C), University of Michigan
Amy Edmundson, PhD, Harvard University Business School
Dorothy Leonard, PhD, author of Deep Smarts: How to Cultivate and Transfer Enduring Business Wisdom
Bob Bea, PhD, Hass School of Business, UC Berkely

Our Roots to Present Day

Observation of successful leaders in high risk organizations, such as Tom Mercer, Admiral (Retired), U.S. Navy, led to the codification of the principles of High Reliability Organizing (HRO). Several academicians, including Karlene Roberts, Karl Weick, and Bob Bea, then codified their observations as HRO.

First, Karlene Roberts and her colleagues identified successful organizational structures that supported these practices after observation of the U.S. Navy, nuclear power plants, and the U.S. Federal Aviation Administration. Then Karl Weick and colleagues added observations of successful practice from their social psychology research on the management of and response to wildland fire. Finally, Bob Bea applied this knowledge to engineering by introducing HRO practices to offshore oil drilling.

Today, the HRO community is made up of a vibrant group of scholars studying HRO principles in many areas as well as a group of practitioners with long-term, naturalistic use of HRO principles and who have successfully implemented these principles. Current activities of this community focus on implementation of HRO into new fields and the identification of principles shared by military combat, public safety, healthcare, industry (such as rubber, paper, steel, oil, chemical processing, petroleum refining), customer service, and financial institutions.

For registration call the Lindy C. Boggs International Conference Center at 1-800-258-8830. Conference price is \$290.00 until midnight December 10, 2009 after which it increases to \$390.00. Space is limited to 200.

Hotel Monteleone (866) 338-4684 is offering special conference rates for workshop participants. Shuttle services will be provided between the hotel and the University of New Orleans.

Conference Agenda

Saturday, January 09, 2010

7:30 am to 8:00 am	Continental Breakfast
8:00 am to 9:50 am	Opening Ceremonies Plenary Lectures: Room 154 Mindfulness for Performance: The basis of reliability Karl Weick, PhD
10:00 am to 12:30 pm	Panel Presentations: Tracks A, B, C & D
12:30 pm to 2:00 pm	Lunch Keynote Address: Naturalistic HRO Tom Mercer, Admiral USN (Retired)
2:00 pm to 4:30 pm	Panel Presentations: Tracks A, B, C, D

Panel Presentations Track A: Room 154

10 to 12:30

Mindfulness as a cornerstone for high performance and reliability: Where and how to start

Presented by: Bert Slagmolen, Bill Hoyle

Mindfulness leads people to a new openness to the situation and problem solving. They will welcome, rather than fear, new information and use it to create new categories of information. They will value how others see the situation, using these different points of view as an added resource for problem solving. Faced with the complex, uncertain, unknown, or unexpected they will then focus on performance over results and outcome. In this manner, they will bring control to the situation through engaged problem solving which changes the context of what they see.

2 to 4:30

Foundations of Reliability: Risk anticipation, problem containment, and decision making with error management

Presented by: To Be Determined

Anticipation of risk, as opposed to planning, guides us individually to identify the unexpected. As individuals identify the problem in a highly reliable organization they begin their efforts to contain the problem and its consequences. We would not have error except that we make and we make decisions to reduce error; error management, rather than error prevention, will reduce the consequences of error.

Panel Presentations Track B: Room 236

10 to 12:30

Error Management to prevent the bigger problem

Presented by: To be determined

When error occurs the organization must manage it before it creates consequences. Once the error has resolved the organization can then learn and, through well-identified processes, become a learning organization.

2 to 4:30

Error of the 3rd kind: Are we asking the right questions? Error of the 4th kind: Are you working the wrong problem because you have to?

Presented by: To Be Determined

Solving dynamic problems can lead individuals and organizations to ask the wrong questions and frame the problem in the wrong way. This exacerbates the situation and can lead to acceptance of poor outcomes or catastrophe.

Panel Presentations Track C: Room 256

10 to 12:30

The organization acts through the individual, how do we optimize human behavior for reliability when complexity occurs suddenly?

Presented by: To Be Determined

Highly reliable organizations build people rather than fix them. Recruit training in the military and public safety, though self-selective, has the goal of building an agile, resilient member of the organization. Some of these approaches can translate to civilian organizations.

2 to 4:30

Topic To Be Determined

Presented by: To Be Determined

Panel Presentations Track D: Room 257

10 to 12:30

Learning to Analyze, Evaluate, and Create: Educating in the System

Presented by: Michele Zembo, Sam Stringfield, Jim Holbrook

We teach memory, understanding, and application for routine problem solving but for complex problems we use analysis, evaluation, and creativity. How do we teach for the complex problem? Rather than inserting high reliability throughout the organization we can insert it incrementally to create the environment that our foundations, goals, and objectives swim in.

2 to 4:30

Topic To Be Determined

Presented by: To Be Determined

Conference Agenda

Sunday, January 10, 2010

7:30 am to 8:00 am	Continental Breakfast
8:00 am to 9:50 am	Plenary Lectures: Room 154 The Codification of HRO Karlene Roberts, PhD
10:00 am to 12:30 pm	Panel Presentations: Tracks A, B, C & D
12:30 pm to 2:00 pm	Lunch Keynote Address:
2:00 pm to 3:50 pm	Panel Presentations: Tracks A, B, C & D
4:00 pm to 5:00 pm	Closing Ceremonies

Panel Presentations Track A: Room 236

10 to 12:30

Beyond the Black Swan to the killer swan or death swan: The Typhoon and the Volcano

Presented by: Tom Mercer, Bert Slagmolan

Preparing for events one has not experienced is confounded by that very lack of experience. This can lead to imaginative threats that stunt the growth of the organization. What is more critical is the hazard that one has not experienced or cannot think of. A highly reliable organization can use its operational experience to develop flexibility and agility in response to novel, dynamic threats.

2 to 4:30

Protection from failure with defense, offense, and strength: How do we increase the intrinsic strength of an organization?

Presented by: To Be Determined

Organizations build into their structure mechanisms for protection, either offensive techniques or defensive. Individuals, through the drive for self-preservation, do so the same. Highly reliable organizations develop resilience and agility through developing strength from within.

Panel Presentations Track B: Room 256

10 to 12:30

Decision Making: Optimizing the Individual

Presented by: To Be Determined

The organization makes decisions through the individual at several levels: operational, management, and executive. Decisions are made for problems that can be deterministic, stochastic, or indeterminate and may or may not have time pressures. An organization can appropriately teach and utilize algorithm, decision trees, and loop decision making in a manner that follows circumstances when the situation expands from the simple to the complex.

2 to 4:30

Decision Making: Optimizing the Structure

Presented by: To Be Determined

While the individual makes the decision, the organization must allow it. The organization's structure can facilitate effective decision making or lead to paralysis.

Panel Presentations Track C: Room 257

10 to 12:30

How can the organization foster reliability?

Presented by: To Be Determined

High reliability organizations see improvement of operations (productivity), processes (quality), and safety as never completed processes. They manage error, avoid blame storming, and encourage spontaneous team formation and collaborative decision making. Under pressure, the individual in the highly reliable organization suppresses ego as "It is not the heat; it's the humility," (Debra Andersen). These organizations foster proactive skills building, critical thinking, commitment to resilience, and dynamic recombination of resources.

2 to 3:50

Building blocks of a learning organization: Learning in action

Presented by: Amy Edmundson

Easy to imagine, but rare in reality, are those organizations that change the behaviors of their people by leading them into new knowledge that they eagerly apply. Organizations in high risk industries need to learn continuously and quickly, especially when surprised by difficult to imagine events. Getting things done despite surprises is required for the high performance of a highly reliable organization. The art of leading learning in both high and low tempo times increases success.

Panel Presentations Track D: Room 257

10 to 12:30

In command and out of control: The Structure of Command and Leadership from low tempo to high tempo

Presented by: Michelle Barton and others to Be Determined

In stable environments central control and hierarchy allow leaders to extend the distance of their reach however in unstable times effective leaders foster distributed decision making. When this happens the values of obedience and conformity diminish in importance, replaced by the values of initiative and creativity. The command style of individual leaders can allow the organization to expand in high tempo yet many leaders exclusively use one of the other style. There are effective methods that allow use of distributed decision making in low temp, stable situations.

2 to 3:50

The thrill and agony of HRO construction: What works, what takes a little longer, and what never will

Presented by: Bert Slagmolen, David Christenson

What we always knew our organizations could be: our hunt for the illusive right tool to get the best. Superficial approaches line the shelves with management by book of the month. Deeper changes in individuals and organizations create lasting changes in resilience and agility. These methods exist and are used today but lack the translation to other and quite different organizations.

Closing

4 to 5 pm

Room 154

To Be Designated

Presented by: Tom Mercer, Bob Bea, Bert Slagmolen,