4th International High Reliability Organizing Conference: Making HRO Operational

Conference Agenda

All speakers offer their personal knowledge, experience, and opinions and do not speak for the organizations with which they are associated.

Wednesday, April 20, 2011

7:00 AM to 8:00 AM
NTSB Auditorium

Abstract Presentations

8:15 AM to 9:00 AM
NTSB Auditorium

Keynote Speaker: Karl Weick, University of Michigan

9:00 AM to 10:30 AM
NTSB Auditorium
(4 panel presenters with 20 minutes each, plus 10 minutes for discussion with the audience, a total of 90 minutes)

Learning from Failure

Moderator: Najmedin Meshkati, Civil and Environmental Engineering, University of Southern California

Panelists: Peter Davidson, Process Safety Manager, UK Petroleum Industry Association; Mark Griffon, Chemical Safety Board; Earl Carnes, Department of Energy

The UK Buncefield oil terminal incident investigation used the CSB Texas City and Baker Panel reports to frame their investigation and extended this framework to include high reliability organization. It sets one framework for understanding the Deepwater Horizon disaster. The Buncefield report is an example of making HRO theory operational. The opening day of the conference is the one year anniversary of the Deepwater disaster.

10:30 AM to 10:45 AM
15-Minute Break
Track A (NTSB Auditorium)

10:45 to 12:00 Noon

**Just Environment: Command Climate, Leadership, and Error**

Moderator: Tony Ciavarelli, US Navy Postgraduate School

Panelists: Tom Mercer, US Navy (retired); Tom Harbour, US Forest Service; Christopher Hart, National Transportation Safety Board

Command, the authority one cannot delegate, and leadership, the ability to change a group’s direction, combine in various ways. Command climate and leadership can present error as a moral wrong or as a part of operational function under uncertainty. Command and leadership can promote a “Just Environment” where processes and systems are designed to make the inevitable human errors inconsequential.

Track B (NTSB Boardroom)

10:45 to 12:00 Noon

**Bringing it together: Uncertainty, unexpected, thinking, and sense making**

Moderator: Bert Slagmolen, Apollo 13 Consultants

Panelists: Bruce Spurlock, Convergence Healthcare Consulting; Jim Holbrook, Crafton Hills College; Randy Cadieux, US Marine Corps

When faced with uncertainty we must figure out the situation and when faced with the unexpected we must rapidly make sense of the situation. Sense making happens before decision making. Sense making for uncertainty and the unexpected is similar for high tempo and low tempo environments and can be taught to novices.

12:00 Noon to 1:00 PM

Lunch Hour
Intervening to make high reliability organizing work

Moderator: Jim Holbrook, Crafton Hills College

Panelists: Annette Gebauer, ICL – Interventions for Corporate Learning; Robert Taen, Apollo 13 Consultants; Shirine Moerkerken, Strange – Strategy and Change; Bert Slagmolen, Apollo 13 Consultants

Four consultants and a scientist actively involved in making HRO work in a broad range of organizations share their experiences, methodologies and results. Perceived financial constraints, perceived leadership focus and perceived government regulations are reframed to make HRO seen as a next step in organizational development instead of a threatening perspective or a new checklist. Their main approach is to develop or enrich organizational cultures in a methodological way to achieve higher levels of collective mindfulness. It means re-enacting challenges, assessing implicit belief and value systems, and collectively developing new interactional patterns. Believing is seeing.

- Collective Mindfulness in an Intensive Care Unit - survival strategies of the non-fittest
- Staff Ride in an Industrial Setting - breaking through bounded rationalities and relations
- Safety in multi-multi-actor settings (railroad sector) - do you see my glass ceiling?
- Learning to enact and act HRO - stretching hearts and minds in chemical process industry

The unexpected environment and its effect on Behaviors, Beliefs, and Values: Are they situational?

Moderator: Jim Conway, Institute for Healthcare Improvement

Panelists: Daved van Stralen, Loma Linda University; Todd Conklin, Los Alamos National Laboratory; Bruce Spurlock, Convergence Health Consulting

Beliefs and values are fairly stable over time, developed in response to our environment, and behaviors help us adapt to any changes. In response to the unexpected, behaviors in the highly reliable organization will change as expected but also values will shift, for example, creativity modifies conformity and obedience submits to initiative. Belief systems can develop that facilitate these changes and augment adaptability.
2:45 PM to 4:00 PM

NTSB Auditorium

Human Performance Improvement, Crew Resource Management, Operational Risk Management and HRO

Moderator: Earl Carnes, Department of Energy

Panelists: Ivan Pupulidy, US Forest Service; Randy Cadieux, US Marine Corps; Todd Conklin, Los Alamos National Laboratory

Human Performance Improvement (HPI) strives to eliminate operational upsets by understanding human fallibility in the context of work processes, organizational systems, and work condition and improve leadership’s reactions to events by focusing on error prevention through learning. Crew Resource Management (CRM) is a set of behavioral skills to facilitate effective and efficient teamwork with the added benefit of reducing risks and increasing the likelihood of desirable outcomes. Time-Critical Operational Risk Management (ORM) examines rapid decision making under conditions of uncertainty, a skill needed to make decisions with insufficient time to analyze hazards in great detail. HRO can integrate HPI and CRM in conjunction with ORM to minimize risk and improve performance.

4:15 PM to 5:00 PM

NTSB Auditorium

Keynote Speaker: Christopher Hart, Vice-Chairman, NTSB

5:30 PM to 8:30 PM

Wednesday Evening Reception at the L’Enfant Hotel

(Details will be available soon.)
Thursday, April 21, 2011

7:00 AM to 8:00 AM
NTSB Auditorium

Abstract Presentations

8:15 AM to 9:00 AM
NTSB Auditorium

Keynote Speaker: Mark Chassin, President of the Joint Commission

9:00 AM to 10:30 AM
NTSB Auditorium

How does organizational reliability seeking fail and what can be done?

Moderator: Daved van Stralen, Loma Linda University School of Medicine

Panelists: Karl Weick, PhD, University of Michigan; Mark Chassin, The Joint Commission; Chris Hart, Vice-Chair, National Transportation Safety Bureau; Tom Mercer, RAdm, USN (ret.)

High Reliability is a method to manage catastrophic failure risks but it, itself, has failed to reliably reform organizations. An organizational incapacity to mobilize systemic reform may impede modification of the system. This panel will discuss the phenomena that undermine reform and methods to reach reliability.

10:30 AM to 10:45 AM
15-Minute Break
**Track A (NTSB Auditorium)**

10:45 AM to 12:00 Noon

*Lessons Learned from the Systematic and Practical Deployment of HRO Concepts in the Department of Energy*

Moderator: *Rick Hartley*, B&W Pantex

Panelists: Todd Harris and Joe Papp; Janice Tolk, Kimbel Leffew & Gary Pool, B&W Pantex

Several organizations within the B&W Pantex are exploring the practical application of High Reliability Organizations. All are finding that the deployment of the theoretical concepts require a simple and practical approach in order to work within the constraints of their operations. As such, many of the organizations have developed unique approaches and have good, hands-on experience with things that work and things that do not work that will benefit other organizations interested in exploring HRO implementation for their organizations.

**Track B (NTSB Boardroom)**

10:45 AM to 12:00 Noon

*When good plans go bad: Wildland firefighting and planning the unpredictable*

Moderator: *Todd Conklin*, Los Alamos National Laboratory

Panelists: Tom Harbour, US Forest Service; Gary Provansal, San Bernardino County (CA) Fire Agency; Ivan Pupulidy, US Forest Service; David Christenson, US Wildland Fire Lessons Learned Center

Because adverse events can harm productivity, quality, or safety it is common to separate these events based on the consequence, whether it is to the process, product, or person. Yet the dynamics of these events are similar, what is harmed simply depends on the terminal event. We can use the common experiences from adverse events to teach experienced employees and newly hired to work in all situations. How can we use past experience in one area to prepare our systems and employees for future unexpected events in other areas?

12:00 Noon to 1:00 PM

*Lunch Hour*
Reliability in the column: Operations, Management, and Executive

Moderator: Earl Carnes, Department of Energy
Panelists: Christopher Hart, National Transportation Board; Jim Conway, Institute for Healthcare Improvement

Operations occur within the local environment, executives work with organizations that can be distant in time or space, and managers translate between the two while adapting to active changes. The principles of high reliability can bring together these seemingly different local environments through coherence between levels and congruence toward goals.

Standardization and Variability: Conflict or Stability?

Moderator: Jim Holbrook, Crafton Hills College
Panelists: Karen Cardiff, University of British Columbia; Peter Angood, National Quality Forum

Check Lists, Six Sigma, Lean, and others are designed for standardization to reduce dangerous variability while variability gives the adaptability necessary for response to uncertainty or unexpected events. Self-repair and adaptability over the short-term, and evolvability over the long-term, give the resilience necessary to create robust systems. Standardization and variability, while in apparent conflict, can combine to bring stability to an organization.

2:30 PM to 2:45 PM

15-Minute Break

2:45 PM to 3:30 PM

NTSB Auditorium

Closing Presentation

Daved van Stralen and Tom Mercer, Strategic Reliability, LLC

Notes: