PRE-WORKSHOP TRAINING, APRIL 12, 2016

9:00 – 10:00 AM    HRO BASICS: INTRODUCTION TO HRO – Dr. Janice Tolk

This session will introduce the novice to HRO from its origins in routine operations of high-risk industries to the academic understanding of the principles that underlie HRO, and include steps to transform an operation into an HRO based on actual experience. Lessons learned from implementing HRO practices

10:00 – 11:00 AM    SYSTEMS THINKING – Dr. Janice Tolk

What is a system? What is systems thinking? What does this have to do with HRO and organizational behavior? An overview of systems theory and systems thinking and how it can facilitate HRO-like behavior will be presented by Dr. Tolk

11:00 – 12:00 AM    INFORMATION, HINDSIGHT, SITUATION AWARENESS, AND DETECTION OF WEAK SIGNALS – Dr. Pat Patterson

Accident and incidents are often characterized by low probability/high consequence events. To avoid or mitigate such events an action is often undertaken which generates information for use by the participant(s) to make decisions; however, this action will often affect the characteristics of the current situation itself. That is, persons often don't know what the best course of action is until they take some kind of action and see what happens. There is a tradeoff between this possibly dangerous act, which might produce the needed information coupled with better understanding of the situation, and a “safe” inaction which promotes continued confusion and no new information. We often use hindsight, a condition where we know the result then work backwards to assign blame, to explain causes- even though those actually involved had no access to the same information. The detection, and use, of weak signals can aid in making sense of a situation without the “we gotta do something” approach of those involved- foresight (proactive) thus replaces hindsight (reactive). A weak signal is a deceptively random or disconnected piece of information that appears to be background noise but, when found and used in an analysis, can be recognized as part of a significant pattern of information. Sense making (by individuals, teams, or organizations) is usually the frailest link in the process of capturing such weak signals (information) and our making sound safety decisions. How can management, the individual, and teams learn to overcome information biases to improve their detection of weak signals? This pre-
sentation will discuss how a subset of biases, latent error, and situation awareness affect our detection of weak signals. We will explore potential methods for finding and using weak signals, learning to develop foresight from hindsight, using accident examples to clarify the approach.

12:00 – 1:00 PM      LUNCH

1:00 – 2:00 PM    HRO – Dr. Bert Slagmolen, partner Apollo13 consult, The Netherlands

There is no standard recipe for making organizations more reliable or even Highly Reliable. Becoming an HRO means motivating, supporting and tooling managers and employees to make High Reliability Seeking part of their culture. However, you will never be there! The world stays Volatile, Uncertain, Complex and Ambiguous (VUCA) – some might say the world is getting more VUCA these days. Quite a few methods, techniques and exercises have been developed the last two decades to fuel HRO and High Reliability seeking. Dr. Slagmolen will give an overview of these tools and will tell about some cases of how they can be used.

2:00 – 3:00 PM    LEADERSHIP AND HRO – Dr. Bert Slagmolen

Leadership and HRO are strongly connected. High Reliability Organizing is never ready and never achieved. Markets, technologies, legislation, people, societies are constantly on the move. We live in a VUCA world (volatile, uncertain, complex, and ambiguous). To manage unexpected, the unwanted, or the invisible we need people with specific collective behaviours, with strong relations, and with open minds. Every deviance or misunderstanding is an opportunity for learning and for improving – but this requires often new behaviors and stronger relations embedded in a focused culture. To develop these behaviors and a culture of collective learning managers need to lead the way. They have to demonstrate behavior that fits HRO. They select the topics, issues and outcomes that contribute to achieving a more reliable performance. They need to offer coaching and training on a daily basis to help people develop new skills. Leadership and HRO means learning and leading in the very moment – in the here and now - not once a year during a strategy session or giving a New Year’s welcome address.

In this 1-hour workshop Dr. Bert Slagmolen will elaborate on these challenges. He will use concrete examples and videos from his own practice to make clear and visible how HRO and Leadership are linked and will also introduce some practical tools that help you to strengthen leadership capabilities in your organization!
At the cornerstone of any HRO program is a thorough understanding of the system; physical, procedural, and cultural. A wealth of related data is often collected through means such as after action reviews and employee reporting, yet this data is unstructured and often used to only make inference about a singular event. It has been estimated that 80% of the data in an organization is in textual form, which is generally not used in strategic decision making of a business. It has been established that mindfulness is the key to a successful HRO plan, but is what being said or not being said indicate that mindfulness is prevalent in an organization?

This presentation will provide an introduction to text mining methods that may be used to detect patterns in common sources of unstructured data with the purpose of measuring HRO maturity. This includes the fundamentals of data manipulation and filtering, and a sampling of pattern recognition methods such as recurrence analysis. A few examples will be given utilizing the open source statistical computing software R with the `tm package`. 
### High Reliability Organization

**Where are we now & where are we going?**

**WORKSHOP DISCUSSIONS – DAY 1, APRIL 13, 2016**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00 – 8:15 AM</td>
<td>WELCOME</td>
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<tr>
<td>8:15 – 9:45 AM</td>
<td>TOPIC 1</td>
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<td>9:45 – 10:00 AM</td>
<td>BREAK</td>
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<tr>
<td>10:00 – 11:30 AM</td>
<td>TOPIC 2</td>
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<tr>
<td>11:30 AM – 1:00 PM</td>
<td>LUNCH AND DISCUSSION</td>
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<td>1:00 – 2:30 PM</td>
<td>TWO PERSPECTIVES ON HRO – Dr. Bert Slagmolen and Dr. Janice Tolk</td>
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<td>2:30 – 2:45 PM</td>
<td>BREAK</td>
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<td>2:45 – 4:15 PM</td>
<td>TOPIC 4</td>
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What are practical implementation and integration processes and tools organizations have used to implement HRO in the workplace?

What is the evolution of HRO in (healthcare, oil and gas, chemical, pick the industry)? What is the latest thinking? How can different industries learn from each other's experience; adapt best practices? Specifically, how is “HRO-ness” measured and sustained?

The five HRO hallmarks postulated by Weick and Sutcliffe remain the bedrock of HRO theory; however, implementing these hallmarks in an organization can take a variety of forms. Two perspectives on HRO will be presented by Drs. Slagmolen and Tolk using the Lac-Megantic rail disaster as a basis.

Application of HRO concepts in other organizational domains suffer from lack of collective mindfulness, poor resilience capabilities, and bureaucratic practices that frustrate organizational learning. How can this be improved? What is the balance between rules and procedures, and flexibility to cope with dynamic environments?

What is the current thinking in research communities on organizational change and HRO? There is hardly any research on developing organizations to a higher level of reliability. Many organizations use Kotter’s 8 steps, which is easy and aligns with HRO quite well. Are there others?
DINNER DISCUSSIONS

INTRODUCTION AND WELCOME – Dr. James Simonton

HRO HEALTHCARE RESEARCH – Dr. Sandra Affare

Hospital-Associated Infections (HAIs) are defined as infections that occur within 48 hours of hospital admission without evidence of the infection being present or incubating at the time of admission. HAIs are a major concern to the medical community due to the potential loss of life and high costs. A high-reliability organization (HRO) is commonly described as an organization that performs high-risk work but without rare, catastrophic events. Any industry relying heavily on human performance, such as healthcare, can benefit from emulating an HRO. The analysis of the Hospital Survey on Patient Safety Culture survey coupled with high reliability theory can provide insight into the mindful state necessary for the organization to successfully emulate an HRO. Dr. Affare will present research relating HAIs with HRO hallmarks was performed, and the results will be discussed.

WORKSHOP DISCUSSIONS – DAY 2, APRIL 14, 2016

8:00 – 8:15 AM WELCOME

8:15 – 9:45 AM TOPIC 5

Health care settings use safety culture surveys extensively. What do they do with the results; i.e., action plans, looking for trends, etc. How do other industries use safety culture surveys?

9:45 – 10:00 AM BREAK

10:00 – 12:00 AM DISCUSSIONS TO FURTHER BIND THE COMMUNITY AND NEXT STEPS