

Riskwise Solutions – High Reliability Organising



Key HRO Principles and Services



RiskWise Solutions

Experience & Background

- Military, Resources, Power Generation, Transport, Manufacturing, Utilities

Specialities

- Organisational transitions from traditional safety management to High Reliability Organising (HRO) and leadership-based safety
- Catastrophic Risk Management and Enterprise Risk Management Systems
- Cultural, Leadership and Operational Discipline Interventions & Programs
- Human reliability and performance management strategies
- Development of HSE teams and performance enhancement strategies
- Accident Investigations - complex organisational events
- Senior Leadership Coaching



Goran Prvulovic
Principal Consultant
MOccHlth&Saf, CPMSIA, RSP (Aust.)



Defining Reliability

- “...ability of a system or a component to function under stated conditions for a specified period of time” (IEEE,1990)
- The ability of a system to perform its intended function without degradation or failure? Consistency and repeatability of control measures?
- OR:
- **Ability of an organisation to manage, in real time, multiple coupled systems and human factors to negotiate complex array of obstacles, threats and disturbances to achieve planned goals through effective recovery or inevitable errors and deviations.**



Current Issues in Safety, Risk and Reliability

- Failure to learn from HRO's experiences, whilst aspiring to absolutistic, unachievable and the 'latest'
- Belief that absence of bad events equals presence of safety
- Safety Management through numbers and consequences – absence of early warning systems
- Reliance on unproven and erroneous paradigms (safety triangles and 'shotgun approach' to safety and reliability management)
- Sunk Cost and Safety Pareto Principle (resources targeting 'squeaky wheels')
- 'People at Fault' cultures, addiction to BBS, poor understanding of human factors, their influence on reliability and ways to mitigate errors
- Overly prescriptive, error intolerant and bureaucratic risk management systems
- Preoccupation with consequences instead of early warnings
- Lack of sensitivity to operations and organisational situational awareness, poor utilisation of safety and risk professionals
- Poor understanding of the criticality of leadership and organisational structures for safety and reliability



Example of Deep Water Horizon

- 'Zero LTI's for 7 years
- A number of senior near miss accidents involving issues with engineering controls 'flew relatively under the radar' – **unnoticed (early warning systems failed)**
- Series of small mistakes and misjudgements lead into **normalisation of abnormal conditions** which snowballed into catastrophe (increased depths, pressures, inadequate blow out preventers)
- Leadership consistently made decisions which favoured speed over safety (speed and production KPI's created overriding priorities) **understanding absence of bad events as relative safety**
- Front line personnel unable to make critical operational decisions – **little or no deference to expertise**
- Little anticipation of errors and redundancies to deal with them – **no or very low resilience**
- 11 fatalities, 17 injures, untold environmental damage, massive organisational losses (>60bn) and loss of public confidence



Key HRO Operational Paradigms

Established HRO Paradigms

- Preoccupation with failures
- Reluctance to Simplify
- Commitment to Resilience
- Deference to Expertise

Emerging Paradigms

- People are not sources of problems – rather sources of solutions
- ‘Error free’, ‘incident free’ and ‘zero harm’ free states are not possible or attainable
- Safety is not absence of negatives – it is the presence of positives
- Criticality of having and utilising capable safety, risk and HR professionals – **key architects of new culture**



RiskWise Solutions - HRO Services



Critical Risk Management - CRM

Critical Risk Management

- Detection, identification and mapping of critical risks
- Testing of existing controls and defences for effectiveness – developing concept of ‘multiple redundancies’ and defences in depth, management of Actions
- Creation of new controls, tools and schedule for periodic testing (how do you know your systems are working in practice and risks are being managed?)
- Development of new and amendments to existing systems and processes
- CRM Training (senior management and front line sessions)
- Proactive investigations and failure analysis (human factors centred)
- CRM & Enterprise Risk Management Systems and Processes



Riskwise Provides:

- Leadership and project management, technical risk management knowledge, engagement, risk mapping, tools and processes, document development

Human Error Management - Increasing Resilience

Human Error Management Services

- Analysis and systematic identification of key error promoting conditions in critical maintenance, operational and decision making environments
- Error mapping, classification and identification of suitable mitigation strategies, recovery and controls
- Development of new and amendments to existing systems and processes
- Delivery of Human Factors Training (various stratum levels)



Riskwise Provides:

- Leadership and project management, error management knowledge, engagement, risk mapping, tools and processes, document & systems development, corporate and operational coaching

Early Warning Systems and Processes

Review, design and modifications of critical information systems

- Review and improvements of existing hazard, incident, near misses reporting and management systems and processes
- Review and design of systems for early reporting of defences and controls in the state of 'degradation' and critical warnings
- Design of leadership and auditing functions and interventions aimed at promoting early detection of critical failures
- Creation of the concept of 'multiple checkers' and 'pattern recognition' of critical information and mechanism for undistorted escalation to senior management

Riskwise Provides:

- Technical and leadership expertise, technical and behavioural analysis, project management, systems and tools as well as training and assistance in implementation



RiskWise FastTrack™ – Corporate Safety and Reliability Improvement Program

Designing HRO Structures

- Review, analysis of corporate structures and proposed changes, specifically towards achieving elevated HRO state and increasing reliability, resilience efficiency and safety. Custom development of HRO Safety Program
- Coaching and mentoring of senior leadership – HRO Success Factors training
- Review of existing effectiveness of HSE and risk management teams and corporate decision making affecting allocation of resources and balance between production and protection
- Development of improvement plans and tools for increased cross functional team communication
- Review of existing states and development of structures and effective methods of facilitating growth of ‘deference to expertise’ and ‘sensitivity to operations’ in business decision making

Riskwise Provides:

- Review, evaluation, technical expertise, training, proposals, systems and processes, corporate consulting, coaching and guidance

Building a Risk Mindful Leadership & Workforce

HRO, Leadership and Risk Management Training

- Development and roll out of HRO training for different stratum levels (inclusive of key HRO principle's in practice, human factors , leadership
- Front line leadership Essentials™ Training Package (2 or 3 days),
- Front Line Risk Management training (one day)
- Advanced Incident Investigation training – beyond established paradigms and towards a HRO level of transparency and depth of learning
- Leadership Coaching Services – personalised or group training and HRO organising coaching sessions for management of risk and people

Riskwise Provides:

- Coaching services, training tools, systems processes and delivery



Leadership Development

Safety Leadership Program (5 days) – Leadership Based Safety

- RiskWise Pathway™ 5 day advanced HRO leadership training program (supervision, middle and senior management). Key learnings:
- How to create trust through consistent ethical behaviours and practices
- Deference to expertise
- Building and maintaining operational situational awareness
- Developing and upholding strong team identity
- Managing power, authority and accountability
- Creating and upholding a culture of operational excellence and operational situational awareness
- Building and promoting Collective Mindfulness and Critical Thinking



Riskwise Provides:

- Coaching services, training tools, systems processes and delivery

RiskWise Pathway™ - Leadership and Risk Management

5 day advanced HRO leadership training program (supervision, middle and senior management)

- Module 1 – Role of front leadership in management of risks
- Module 2 – Safety Leadership and Creation of Safety Culture
- Module 3 – Key leadership values, behaviours, skills and practices
- Module 4 – Team building, individual and group behaviour
- Module 5 – Human Factors, Safety and Reliability in Operations
- Module 6 – Practical Risk Management for Front Line Management & 13 keys for safe and reliable operations
- Module 7 – Creating a Team Operational Discipline and Safe Execution of Work
- Module 8 – Infield™, engagement and Influencing



RiskWise Enhance™ - Leadership Coaching Services

Senior leadership development

- Development and enhancement of skillset, knowledge, experience and ability to empower, motivate, inspire, influence, develop and coach others towards achieving a common goal and doing it by going above and beyond the call of duty
- Development of fundamental HRO knowledge needed for guiding the business towards more advanced HRO states

Riskwise Provides:

- Group or personalised training and coaching sessions, hands on support, reading and study materials, practical daily advice



Develop and Enhance Reporting, Learning, Informed and Just Culture

Corporate Services

- Assessment of current reporting, learning, informed and just culture
- Delivery of a report with suggested changes and opportunities for improvement
- Provision of strategies, systems and procedures for development or enhancement
- Training and coaching services for corporate HR, HSE and Operational stakeholders

Riskwise Provides:

- Project management, technical and field analysis, systems and process development, strategy development and training



Creating Pragmatic and Error Tolerant Safety and Risk Management Systems

System Review and Development

- Management of complexity, oversimplifications and unnecessary
- Systems designed around human fallibility – error identifying and error tolerant
- Psychological health risks
- Management of maintenance errors
- Goal vs process based procedures and systems – finding the right balance in critical operating environment
- Parallel long and short systems
- Verifying SMS effectiveness – assessment and compliance to due diligence legislative expectations

Riskwise Provides:

- Project management, systems and tasks review, systems development and strategy



Organisational Sensitivity to Operations

Operational Strategy Services.

- Coaching and guidance towards creating and maintaining deep understanding of operational awareness at multiple levels:
- Operational Front Line, Interdepartmental, Cross functional and Corporate
- Development and creation of multiple mechanisms for maintaining up to date and real time awareness of what is going on in operations
- Coaching key stakeholders towards total Internal transparency – no silo mentality or tolerance to local empire building
- Systems and processes for development and enhancement of Operational Discipline (OD)

Riskwise Provides:

- Project management, systems and tasks review, systems development and strategy, training



Various WHS Training

Courses:

- Senior and Executive Risk Management and Due Diligence Training (1day)
- Create and promote situational awareness in the workplace (1 day)
- Advanced Incident Investigations – going beyond established paradigms (2 days)
- Introduction to catastrophic risk management (1 day)
- Practical Front Line Risk Management (1 day)
- Human Performance Management Fundamentals - coaching for success, improvement and performance (1 day)
- Various custom HSE and leadership training



Thank You

