WORKING TOGETHER
ALARM CONFERENCE 2019

#alarmrisk2019
The Application of Dynamic Risk Assessment

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Glenridding Beck Incident 26\textsuperscript{th} May 2002

- Schoolboy Max Palmer drowning
- HSE recommended that activity leaders be:
  "competent in dynamic risk assessment for the activity, so that they can continuously evaluate the implications of changing conditions"
- This led to the HSE serving a number of Improvement Notices
  "even when all reasonably practicable precautions have been taken to deal with foreseeable risks, work related injuries, cases of ill health and deaths could still occur"
Brief History of Dynamic Risk Assessment (DRA)

Where did the term 'dynamic risk assessment' come from?

- Fire Service refocused its challenge on managing fire-fighter risk following a number of deaths
- The Fire Service introduced the concept of DRA in the early 1990's as a means to manage operational risk in dynamic situations
- The emergence of naturalistic decision-making and recognition primed decision-making
- The need for rapid assessments in dynamic situations is undertaken by range of organisations
DRA Concepts

• DRA is concerned with on-the-spot decision making
• What are the risk profiles of organisations that operate in dynamic situations
• Links between ‘strategic’, ‘predictive’ and ‘dynamic’ risk and decision-making
• DRA provides a framework for risk-based decision making
• Risk in itself is not dynamic!
• Strong basis of risk assessment and a risk management structure

(Adapted from Jacobs, 2010a)
Original DRA Definition

How ‘dynamic risk assessment’ was defined?

The Fire & Rescue Service defined DRA as:

“the continuous assessment of risk in the rapidly changing circumstances of an operational incident, in order to implement the control measures necessary to ensure an acceptable level of safety”

(HM Fire Service Inspectorate, 1998)
Some misconceptions of DRA

• DRA is only applicable in ‘blue light’ emergency services!
• DRA seen as a substitute for predictive risk assessments
• The concept of DRA is a standalone approach to making decisions
• We only need to train front line staff in DRA methodology!
• We should apply DRA to every situation
• I’ve done my DRA, so I’m covered!

(Jacobs, 2010a)
The importance of the HSE: 5 Steps to ‘Predictive’ Risk Assessment

- Step 1: Identify the hazards
- Step 2: Decide who might be harmed and how
- Step 3: Evaluate the risks and decide on precautions
- Step 4: Record your findings and implement them
- Step 5: Review your assessment and update if necessary

(HSE INDG163 (rev3 02/12))
The 6 Steps to: ‘Dynamic’ Risk Assessment

- Step 1: Evaluate the situation
- Step 2: Introduce / declare tactical mode
- Step 3: Select safe systems of work
- Step 4: Assess the chosen systems of work (can you proceed?)
- Step 5: If not, introduce additional controls measures
- Step 6: Re-assess systems of work and add additional control measures

(Fire Service Manual, 2008)
Integrating Risk Management at all Organisational levels

**Macro**

**Senior Management**
- Strategy & Policy
- Priority Resources
- Accountable / responsible leadership

**Meso**

**Line Management**
- Predictive risk assessment
- Prioritise and manage safety
- Implement appropriate controls

**Micro**

**Workers**
- Empowered to make decisions in dynamic situations
- Continually assessing risk
- Provide feedback to line management

(Adapted from Jacobs, 2010b)
Dynamic Risk Assessment - Case Law

Cornish Glennroy Blair-Ford v CRS Adventures Ltd

• Issue of liability following disabling injury at an outdoors activity

• Claimant took part in a ‘welly-wanging’ activity as part of a Mini-Olympic event

• Claimant argued that the risk was foreseeable and that the method of throwing that he was instructed to use was unsafe

• Defendant’s case argued the application of DRA as part of risk assessment

(England and Wales High Court (Queen’s Bench Division) Decisions, 2012)
Key features of Judge’s decision:

- Previous Company safety performance
- **Predictive** Risk Assessment in place for Mini-Olympics
- Unforeseen risk negated the need for a specific risk assessment
- Due to various factors (e.g. uneven ground) the Judge concluded that DRA was suitable
- Based on DRA, Judge found there was no need to modify activity
- Judgement in favour of the defendant

(England and Wales High Court (Queen’s Bench Division) Decisions, 2012)
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Managing risk: in the operational environment

- How much confidence is placed on predictive risk assessments?
- What are the behaviours and expectations of your staff?
- Is your process for risk assessment sensible and proportionate?
- How do you plan your activities?
- How do you ensure operational effectiveness?
- Reliant upon effective and integrated risk management system
- Requires a positive culture at macro-meso-micro levels
What numbers come next?

2 4 8 ? ? ?
Expect the unexpected

2 4 8 16 17

Think before you act!
Defining Organisational Core Values

• Core values must be aligned to vision and goals
• What does your ‘core values’ say about risk?
• What messages do we transmit to our workforce in the field?
• Do staff understand the core values and expected behaviours?
• How can we avoid giving confusing messages?
• Good consistent behaviour requires assuring core values

(Adapted from Jacobs, 2010a)
Example of Core Values:

“We may risk our lives a lot, in a highly calculated manner, to protect saveable lives.

We may risk our lives a little, in a highly controlled manner, to protect saveable property.

We will not risk our lives at all for lives or property that are already lost.”

(HM Fire Inspectorate, 1998)
Safe Person Concept

**Employer (duty holder) responsibilities**

- Training
- Selection
- Personal Protective Equipment
- Safe system of work
- Supervision
- Instruction
- Information

(Home Office, 1998)

**Employee responsibilities**

- Able to recognise his/her abilities and limitations
- Adaptable to changing circumstances
- Self-disciplined to work within accepted systems of work
- Vigilant for his/her own safety, colleagues & others
- An effective member of a team
- Competent to perform tasks assigned
The Role of Risk-Based Training

• Holistic approach to Training

• Include bias awareness training such as; confirmation bias, representation bias, myside bias and hindsight bias

• Delivered by competent people with knowledge, understanding and application of predictive as well as dynamic risk assessment

• Integral part of Predictive Risk Assessment Training

• Training should reflect ("sfarp") the realism of the activity

• Training should be aligned to core value principles to illicit expected behaviours in the field

(Adapted from Jacobs, 2010b)
Organisational Feedback & Learning

• DRA provides the basis for learning
• Line Management should review ‘predictive’ risk assessment as an integral part of the process
• Debriefs need to be effective
• How do you ensure that there is effective decision evaluation and can demonstrate this?
• Ensure that you have up-to-date records before, during and after the activity?
• Effective communication & dissemination of information is key

(Jacobs, 2010a)
Top Tips

• DRA requires a positive Risk Management culture
• Integrated risk management structure and golden thread running through macro-meso-micro levels
• DRA objectives must be aligned to organisation strategy and core values
• Shared understanding of predictive risk assessment
• Training delivered by ‘competent’ people
• Embedded system of debrief, feedback and learning
• Give training and greater accountability to line management in recognition of their key roles in the process.
Thank you for listening
Any questions....?