Transforming The Decision-Making Capabilities Of Leaders In Emergency Management

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“Truly successful decision-making relies on a balance between deliberate and instinctive thinking.”

Malcolm Gladwell

“Decisions guide the distribution and subsequent deployment of assets, the removal of people from harm’s way, how objectives are established and a myriad of other actions. Decision-making is therefore an important skill for emergency managers permeates every emergency event and every level of disaster management.”

Brooks, et.al (2016) AJEM October in press
Emergency events ‘don’t play by the rules’. Decisions are often time pressured.

**Uncertainty.** The timing, accuracy and completeness of the available information is far from optimal.

**Constrained** by organisational, political, social and financial/resource factors.

**Challenged** by fatigue, workload, stress and cognitive errors.
Decision-making Schematic

Intelligence: Collects analyses info to develop COP

The IC: Set objectives, key decision questions, monitors IAP, COP and OA

Operations: Implements IAP and monitor operational risk

Planning: Uses COP to build IAP, monitors risks, develops OA
During the deployment of a USAR team the team leader needed to manage their response to four key risks associated with after-shocks, tsunamis, extreme cold and radiation exposure.

He needed to manage these risks while meeting the objectives of the deployment and where to locate the Base of Operations (BOO).

1. Locate the BOO on high ground, away from buildings in tents on a baseball pitch.
2. Locate BOO on low ground, using buildings for shelter.
Factor in uncertainty, time pressure, constraints…
<table>
<thead>
<tr>
<th>Decision concept</th>
<th>Coverage in surveyed organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision styles: awareness of and an ability to work across the spectrum from intuitive to classically rational decision approaches</td>
<td>Less than 15%</td>
</tr>
<tr>
<td>Monitoring themselves and their teams for evidence of bias or decision errors.</td>
<td>Less than 15%</td>
</tr>
<tr>
<td>Sense-making: interpreting ongoing emergency, addressing contextual, uncertain, resource-constrained nature.</td>
<td>50%</td>
</tr>
<tr>
<td>Record-keeping: balancing the need to record decisions with the effect recording has in creating bias in decision-making.</td>
<td>Less than 15%</td>
</tr>
<tr>
<td>Creating psychologically safe decision environments that build and maintain trust in teams.</td>
<td>50%</td>
</tr>
</tbody>
</table>
Resilient organisations...have developed their approaches to the management of risk to the point that they have an almost organic capacity to respond to, and even capitalise upon, change whenever it occurs.
Organisational Resilience

Attributes and Indicators

- Leadership
- Situational awareness
- Innovation & creativity
- Proactive posture
- Stress testing plans
- Planning strategies
- Change ready
- Resilience: The ability to survive a crisis and thrive in a world of uncertainty
- Networks & relationships
  - Effective partnerships
  - Internal resources
  - Leveraging knowledge
  - Breaking silos
  - Unity of purpose
Post exercise decision-making survey

The following page contains twenty-one statements about the decisions made during this exercise. Please rate how much you personally agree or disagree with these statements by placing an X in the appropriate column.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The CMT made appropriate decisions based on available information</td>
<td></td>
<td></td>
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<tr>
<td>The CMT verified the authenticity of important intelligence</td>
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<tr>
<td>The CMT built and maintained a common operating picture throughout the exercise</td>
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<tr>
<td>The CMT maintained a clear chain of command during the exercise</td>
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<tr>
<td>The CMT was flexible and adaptive in its response to the crisis</td>
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<tr>
<td>The CMT displayed rapid and adaptive behaviour to solve problems and encourage solutions</td>
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</tbody>
</table>
Preliminary Results

Positives:
• Clear chain of command
• Flexible/adaptive responses
• Teams drawing on relevant knowledge/experience
• Consideration of organisational values during decision-making

Negatives:
• Difficulties in use of IT systems to support teams
• Lack of effort to manage error/bias during decision-making
• Not identifying information that might change decisions
• Poor recording of options analysis
### Opportunities

<table>
<thead>
<tr>
<th>Decision concept</th>
<th>Tool being tested or approach taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of and an ability to work across the spectrum from intuitive to classically rational decision approaches as the context requires them to.</td>
<td>Training course to understand decision styles linked with several tools – including anticipatory thinking; meta-cognitive loop; coping ugly heuristic.</td>
</tr>
<tr>
<td>Balancing the need to record decisions for future reference with the effect recording has in creating bias in decision-making.</td>
<td>Modified decision-logs to record decisions that map uncertainties and trigger change decisions.</td>
</tr>
<tr>
<td>Monitoring themselves and their teams for evidence of bias or decision errors.</td>
<td>Checklist for biases and decision errors.</td>
</tr>
<tr>
<td>Creating psychologically safe decision environments that build and maintain trust between teams.</td>
<td>Training course and a simple tool to apply the steps of psychological safety identified by Edmondson (1999).</td>
</tr>
</tbody>
</table>
- Checklists for Aides-Mémoire
- Alternate decision-log
- Training course
- Validated cognitive decision aids
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