‘COUNTERING COMPLEXITY’

DECISION-MAKING IN CRISIS RESPONSE’
SECURITY & INTELLIGENCE

SPECIAL TACTICS & OPERATIONS COMMAND

Armed Support Unit
Special Operations Command & Development

Emergency Response Unit
National Negotiation Unit
STOC Specialist Training Unit
RATIONAL DECISION MAKING PROCESS

1. Outline the goal or outcome/analyse the problem
2. Gather data/consider factors
3. Develop/prioritise alternatives/courses of action
4. Consider the pros and cons of each alternative
5. Make the decision
6. Implement the decision/take action
7. Learn from the decision
‘We make more than 20,000 decisions every day, most of them at lightning speed’

Ernst Poppel
DECISION MAKING - CHALLENGES

- HIGH COMPLEXITY & CONSEQUENCE
- INCOMPLETE/INACCURATE INFO-INTEL
- TIME CONSTRAINT
- DYNAMIC ‘VUCA’ ENVIRONMENTS
- AGAINST AN ADVERSARY
- PHYSIOLOGICAL/PSYCHOLOGICAL FACTORS
- COGNITIVE BIASES
DECISION MAKING - CHALLENGES

COMPLEXITY
DECISION MAKING - COMPLEXITY

SIMPLE

COMPPLICATED

COMPLEX

CHAOTIC
## Problem/Decision Complexity?

<table>
<thead>
<tr>
<th>Simple</th>
<th>Complicated</th>
<th>Complex</th>
<th>Chaotic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Known Knowns</td>
<td>Known Unknowns</td>
<td>Unknown Unknowns</td>
<td>Unknowable Unknowns</td>
</tr>
<tr>
<td>No Expertise Required – Follow Instructions</td>
<td>Expertise in Many Fields Required</td>
<td>Expertise May Be Insufficient – Adaptive Response</td>
<td>Expertise May Be Insufficient – Novel Response</td>
</tr>
<tr>
<td>Good/Standard Practice</td>
<td>Good/Standard Practice</td>
<td>Emergent Practice</td>
<td>Novel/Adaptive Action</td>
</tr>
<tr>
<td>Predictable Outcome</td>
<td>Good/Standard Practice</td>
<td>Relatively Unpredictable Outcome</td>
<td>Unpredictable Outcome</td>
</tr>
<tr>
<td>Correct Answer</td>
<td>Many Correct Answers</td>
<td>Emerging Solutions</td>
<td>No Knowable Solutions</td>
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DECISION MAKING - CHALLENGES

CONSEQUENCE
MEM Conference, Athlone 2019

DECISION MAKING - CONSEQUENCE
DECISION MAKING - CHALLENGES

INCOMPLETE/INACCURATE INFO-INTEL
DECISION MAKING- CHALLENGES

- **INCOMPLETE INFO/INTEL** - ACTION MAY BE IMPERATIVE REGARDLESS

- **QUALITY & QUANTITY** - PERPETUALLY SEEKING MORE/BETTER

- **FACT \(\text{v}\) ASSUMPTION** - RECORD DETAIL/RATIONALE
DECISION MAKING - CHALLENGES

THE 40-70 RULE (GEN. Colin Powell)

- ≤ 40%  BOUND TO BE WRONG
- ≥ 70%  STRIVING FOR CERTAINTY – TOO LATE
DECISION MAKING - CHALLENGES

TIME CONSTRAINT
DECISION MAKING - CHALLENGES

- PACE/TEMPO

  ‘SLOW IS STEADY, STEADY IS SMOOTH, SMOOTH IS FAST’

  (Anon - military)

- PROCRASTINATION

  ‘IT IS BETTER TO ACT QUICKLY AND ERR THAN HESITATE UNTIL THE TIME OF ACTION IS PAST’

  (von CLAUSEWITZ)
DECISION MAKING - CHALLENGES

DYNAMIC/‘VUCA’ ENVIRONMENTS
DECISION MAKING - CHALLENGES

> DECISION ENVIRONMENT

> DYNAMIC/VOLATILE/UNCERTAIN/COMPLEX/AMBIGUOUS - UNCONTROLLABLE

> HAZE OF BATTLE – CONFOUNDING ABILITY TO PLAN AND ACT EFFECTIVELY

> PHYSICAL ENVIRONMENT

> PERSONAL DANGER

> PHYSICAL DISCOMFORT

VUCA

- Complexity
  - Multiple key decision factors

- Volatility
  - Rate of change

- Ambiguity
  - Lack of clarity about meaning of an event

- Uncertainty
  - Unclear about the present

How much do you know about the situation?

How well can you predict the outcome of your actions?
DECISION MAKING- CHALLENGES

PHYSIOLOGICAL/PSYCHOLOGICAL FACTORS
FACTORS EFFECTING DECISION MAKING

- Cognitive Overload
  - Distraction/Memory lapse

- Power of Habit
  - Experience/Knowledge

- Psychological/Physiological
  - Stress, Fatigue, Emotion, Diet/Hydration

- Group-think
  - Follow the herd

- Power of Bias
  - Normalcy, Confirmation, Complacency
DECISION MAKING - CHALLENGES

COGNITIVE BIAS
COGNITIVE BIASES & DECISION ‘TRAPS’

EFFECTING DECISION MAKING

- STATUS QUO
- ANCHORING
- FRAMING
- SUNK COSTS
- PERFECTIONISM
- NORMALCY
- CONFORMITY
- AUTHORITY
DECISION MAKING BIAS

- COMPLACENCY
  CONTENTMENT WHILST UNAWARE OF PENDING DANGER ‘NEVER HAPPEN HERE/TO ME’

- NORMALCY BIAS
  UNDERESTIMATION OF LIKELIHOOD/EFFECT – COGNITIVE DISSONANCE ‘CAN’T BE THAT BAD’

- CONFIRMATION BIAS
  SELECTION OF EVIDENCE THAT CONFIRMS EXISTING BELIEFS ‘THAT’S NORMAL - PROBABLY BE FINE’
DECISION MAKING BIAS

• **PERFECTIONISM**

  STRIVING FOR FLAWLESSNESS/ TO ATTAIN UNREALISTIC GOALS

  ‘THE ENEMY OF A GOOD PLAN IS THE DREAM OF A PERFECT PLAN’

  (von Clausewitz)

• **STATUS QUO**

  A PREFERENCE FOR THE CURRENT STATE OF AFFAIRS

  ‘IN ANY MOMENT OF DECISION, THE BEST YOU CAN DO IS THE RIGHT THING, THE NEXT BEST THING IS THE WRONG THING, AND THE WORST THING YOU CAN DO IS NOTHING’

  (Theodore Roosevelt)
COUNTER MEASURES

• USING DECISION MAKING MODELS: RATIONALE v INTUITIVE DECISION MAKING

• USING PROCESS & CHECKLISTS: ELIMINATE/MINIMISE ERROR

• BEING SITUATIONALLY AWARE: KNOWING YOU NEED TO MAKE DECISIONS

• DECISION MAKING IN ADVERSITY: OODA LOOPING – EFFECTIVE/FASTER DECISIONS
TYPES OF DECISION

**INTUITIVE** *(SUBJECTIVE)*

FACTS UNAVAILABLE – COMPLEX/CHAOTIC – EMOTIONAL ‘GUT’ FEELING – UNIQUE/INCONSISTENT

**RATIONAL** *(OBJECTIVE)*

FACT BASED – PROCESS DRIVEN – ANALYTICAL/ PRECISE - CONSISTENT
VARIETIES OF DECISION-MAKING/PLANNING MODELS

The Classical Model of Decision Making

- When faced with a decision situation, managers should...
- Obtain complete and perfect information. Eliminate uncertainty. Evaluate everything rationally and logically...
- And end up with a decision that best serves the interests of the organization.

Four-Phase Decision Making Process

- Learn from Experience
  - Build knowledge base and improve process for making future decisions
- Frame the Issues
  - Consider the issues that matter
  - Ask the right questions
- Decide
  - Make decisions based on insight
- Gather Intelligence & Communicate Insight

Decision
- Situation
- Policy
- Values
- Procedure
- Risk Appetite
- Legislation
### 7 Questions

1. What is the situation and how does it affect me?
2. What have I been told to do and why?
3. What effects do I need to achieve and what direction must I give in order to develop my plan?
4. Where can I best accomplish each action/effect?
5. What resources do I need to accomplish each action/effect?
6. When and where do the actions take place in relation to each other?
7. What control measures do I need to impose?
DECISION MAKING- CHALLENGES

AGAINST AN ADVERSARY
BOYD’S ‘OODA’ LOOP

- Observe
- Orient
- Decide
- Act

Diagram showing the cyclical process of the OODA loop.
BOYD’S OODA LOOP

- **Observe**
  - Implicit Guidance & Control
  - Unfolding Circumstances
  - Outside Information
  - Unfolding Interaction with Environment
  - Observations
  - Feed Forward

- **Orient**
  - Cultural Traditions
  - Genetic Heritage
  - Analysis & Synthesis
  - New Information
  - Previous Experiences
  - Feed Forward

- **Decide**
  - Decision (Hypothesis)
  - Feed Forward

- **Act**
  - Action (Test)
  - Unfolding Interaction with Environment
  - Feedback
  - Feedback
  - Feedback
  - Feedback
‘OODA’ LOOPING

• MAKING **SPEEDY**, HIGH-RISK DECISIONS

• AGAINST AN OPPONENT/ADVERSARY

• IN HIGH-STRESS, DYNAMIC ‘**V.U.C.A.**’ ENVIRONMENTS

• UNDER COLLAPSING TIME-FRAMES

VOLATILE, UNCERTAIN, COMPLEX, AMBIGUOUS
OODA LOOP IN ADVERSITY

‘GETTING INSIDE YOUR OPPONENTS OODA LOOP’
THE GARDA DECISION MAKING MODEL (GDMM)
UK National Decision Model (NDM)
FOUR PHASE DECISION MAKING PROCESS

1. COGNITION
2. META-COGNITION
3. HYPOTHESEISE
4. TEST HYPOTHESIS

5. INFO/INTELL
6. ASSESS/STRATEGISE CONSIDER THE ENVIRONMENT
7. OPTIONS & CONTINGENCIES
8. ACT & REVIEW
COGNITION  META-COGNITION  HYPOTHESEISE  TEST HYPOTHESIS

OBSERVE  ORIENT  DECIDE  ACT

INFO/INTELL  ASSESS/STRATEGISE CONSIDER THE ENVIRONMENT  PLANS & CONTINGENCIES  ACT & REVIEW
RATIONAL DECISION MAKING PROCESS

1. Outline the goal or outcome/analyse the problem
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DYNAMIC THREAT & RISK ASSESSMENT

• IDENTIFY & RECORD **SOURCE** OF RISK/ THREAT (SUBJECT)

• IDENTIFY **PERSONS/GROUPS** AT RISK OR UNDER THREAT

• IDENTIFY AND ASSIGN THE **LEVEL** OF RISK/THREAT – **HIGH/ MEDIUM/ LOW/ UNKNOWN**

• **RECORD AND PRIORITISE** THOSE AT RISK/UNDER THREAT

• IDENTIFY **STRATEGIES/TACTICS** FOR REDUCING OR ELIMINATING RISK/ THREAT

• ‘**MAXIMISE SAFETY**’ WHERE POLICE HAVE ANY CONTROL

• ‘**MINIMISE RISK**’ WHERE POLICE UNABLE TO CONTROL

• DEVELOP **INFO/ INTEL, CONTAIN THREAT/ SECURE & PRESERVE EVIDENCE/ MAINTAIN PUBLIC CONFIDENCE**
LINEAR CHECKLIST - CIRCULAR MODEL

• GATHER INFORMATION & INTELLIGENCE

• ASSESS THREAT & RISK

• CONSIDER ENVIRONMENT

• IDENTIFY OPTIONS & CONTINGENCIES

• TAKE ACTION & REVIEW
LINEAR CHECKLIST - CIRCULAR MODEL

- GATHER INFORMATION & INTELLIGENCE

- ASSESS THREAT & RISK

- CONSIDER ENVIRONMENT
  - COMMUNITY & STAKEHOLDERS
  - LEGAL POWERS
  - RIGHTS
  - POLICIES, PROCEDURES & PRACTICES

- IDENTIFY OPTIONS & CONTINGENCIES

- TAKE ACTION & REVIEW
COUNTERING COMPLEXITY - CHECKLISTS

- ACKNOWLEDGING HUMAN FRAILTY

- CHECKLISTS – B 17 (X299), 1935

- W.H.O. SURGICAL CHECKLIST, 2008
COUNTERING COMPLEXITY

Surgical Safety Checklist

Before induction of anaesthesia
(with at least nurse and anaesthetist)

- Has the patient confirmed his/her identity, site, procedure, and consent?
  - Yes
- Is the site marked?
  - Yes
  - Not applicable
- Is the anaesthesia machine and medication check complete?
  - Yes
- Is the pulse oximeter on the patient and functioning?
  - Yes
- Does the patient have:
  - Known allergy?
    - No
    - Yes
  - Difficult airway or aspiration risk?
    - No
    - Yes, and equipment/assistance available
  - Risk of >500ml blood loss (7ml/kg in children)?
    - No
    - Yes, and two IVs/central access and fluids planned

Before skin incision
(with nurse, anaesthetist and surgeon)

- Confirm all team members have introduced themselves by name and role.
- Confirm the patient's name, procedure, and where the incision will be made.
- Has antibiotic prophylaxis been given within the last 60 minutes?
  - Yes
  - Not applicable

Anticipated Critical Events

To Surgeon:
- What are the critical or non-routine steps?
- How long will the case take?
- What is the anticipated blood loss?

To Anaesthetist:
- Are there any patient-specific concerns?

To Nursing Team:
- Has sterility (including indicator results) been confirmed?
- Are there equipment issues or any concerns?

Is essential imaging displayed?
- Yes
- Not applicable

Before patient leaves operating room
(with nurse, anaesthetist and surgeon)

Nurse Verbally Confirms:
- The name of the procedure
- Completion of instrument, sponge and needle counts
- Specimen labelling (not specimen labels aboard, including patient name)
- Whether there are any equipment problems to be addressed

To Surgeon, Anaesthetist and Nurse:
- What are the key concerns for recovery and management of this patient?
COUNTERING COMPLEXITY
COUNTERING COMPLEXITY
‘IN SITUATIONS WHERE DIFFERENT ORGANISATIONS ARE WORKING TOGETHER, THEY NEED A COMMON VOCABULARY TO ENABLE THEM TO COMMUNICATE EFFECTIVELY....UNDER THE PRESSURES THAT A M.E. WILL BRING...DIFFERENCES CAN SERIOUSLY IMPEDE THE ACHIEVEMENT OF CO-ORDINATED & SAFE E.M. (p.16)
COMMON LANGUAGE/TERMINOLOGY

- COMMAND: EACH P.E.S. OVER ITS OWN RESOURCES
- CONTROL: EACH P.E.S. OVER ITS OWN RESOURCES/OTHER SERVICES IT MOBILISES
- CO-ORDINATE
- CO-OPERATE
- COLLABORATE
JESIP(UK) – JOINT DECISION MAKING MODEL
JoST DECISION MODEL

The Joint Decision Model (JDM) will help commanders bring together available information, reconcile objectives and then make effective decisions together.

IT IS ORGANISED AROUND THREE PRIMARY CONSIDERATIONS:

SITUATION
What is happening?
What are the impacts?
What are the risks?
What might happen and what is being done about it?

DIRECTION
What end state is desired?
What are the aims and objectives of the emergency response?
What overarching values and priorities will inform and guide this?

ACTION
What needs to be decided and needs to be done to resolve the situation and achieve the desired end state?

WEBSITE: WWW.JESPORG.UK | EMAIL: CONTACT@JESPORG.UK | TWITTER: @JESIP99
Assistant Commissioner Nick Ephgrave (LMP):

‘Our business, your business, is about making difficult decisions, sometimes life or death decisions, with an imperfect set of information in a changing environment so sooner or later something is going to go wrong isn’t it? It doesn’t necessarily mean to say you’ve done anything wrong’

‘I want to push this message with my people that as long as you record your rationale and as long as it’s not bonkers, and it never is in my view, if the worst were to happen, sometimes that’s policing, sometimes that happens.’
DECISION MAKING - TAKEAWAYS

- Know as much as you can
- Apply as much process/rationale as you can
- Make the most effective decision for the right reason
- Record your decisions & rationale throughout /ASAP

AND

Understand and accept that decision making in complex or chaotic environments cannot always lead to guaranteed and desired outcomes
THANK YOU

QUESTIONS?

INSPECTOR DONAL O’DRISCOLL, STOC

(086) 82 82 404
A FRAMEWORK FOR
MAJOR EMERGENCY MANAGEMENT

A Framework enabling An Garda Síochána, the Health Service Executive and Local Authorities to prepare for and make a co-ordinated response to major emergencies resulting from events such as fires, transport accidents, hazardous substance incidents and severe weather.
MAJOR INCIDENT PLAN

IF A MAJOR INCIDENT HAS BEEN DECLARED DO

NOT READ THIS PLAN NOW BUT REFER TO YOUR

ACTION CARD