



Course of Action Wargaming Introduction

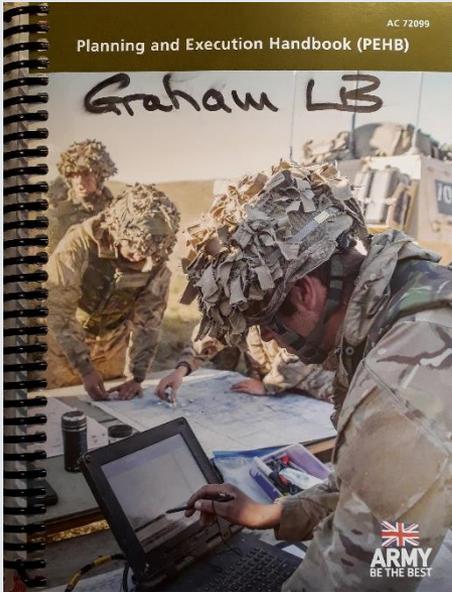




Course of Action Wargaming: Practical Recommendations

Graham Longley-Brown

References



Seq	Event or Activity (A)	Person Responsible (B)	Remarks (C)
Prerequisites			
1	Initial brief • Aim • Adversaries role and function • Mechanics • Wargame turns and timings • Maps available • Recording • Higher Commander's guidance • Key estimate outcomes • Key assumptions	Chief Controller (usually COB or Chief J)	
2	Adversary review	J-Red Cell	CONCIPs or ends, ways, means to the required level of detail. As required
3	Armed Non-State Actor (ANSA) and Organised Crime (OC) profiles	J-Blue, Orange and Black Cells	As required
4	Humanitarian and Humanitarian Services	White Cell and J-Red Cell	As required
5	Water planning context	J-Blue, J-Red or POLAD	As required
6	Friends Forces review, including JNs and Coalition partners	Blue Cell and J-Red Cell	CONCIPs or ends, ways, means to the required level of detail
7	J-Red Action items	By J-Red Cell	As required. Companion JNs and Coalition partners apply. As required
8	J-Branches review	By J-Branch	As required
For Each Wargame Turn			
9	Cell A Action	J-Red or J-Branch	Starts situation from CONCIPs or ends, ways, means to the required level of detail with being input from J-Branches and Complements
10	Cell B Reaction	J-Red Cell	Challenge assumptions as necessary
11	Frictions and oppositional factors	Red Team	Challenge assumptions as necessary
Short break for OA and Chief Controller consideration			
12	Adjudication of Outcomes	OA (if present) or Chief Controller	Best case, worst case and most likely outcomes. Best selected outcome
13	Cell A Counteraction	J-Red or J-Branch	Always based on the Action, Reaction and Outcomes, what would Cell A do now?
14	What if... considerations	Chief Controller	Examine alternatives
15	Consequence Management	White Cell, POLAD, DUALD, LEAD	Transitions 2nd and 3rd order and prioritised consequences
16	Cognition Phase	Chief Controller	Confirm understanding, consultation and recording of outcomes.
Repeat steps 9 - 16 as necessary			
After final turn			
17	Recording confirmation	scribe	Summarise key findings, as required
18	COA Wargame summary	Chief Controller	Summarise key outputs and provide DMO, as required

Do	Do Not
Ensure the process is command-led. Focus on the commander's prioritised concerns with the plan; these become the wargame turns	Forget the aim of COA Wargaming: to stress-test the plan to identify risks and issues
Prepare thoroughly, explain and then follow the procedures (sequence of events <i>not</i> in SOHBI)	Worry about what you call the technique used (belt, box, by phase, by DC etc)
Ensure the Red Cell is empowered and plays to win using all capabilities: they should tend towards their most dangerous COA, but with no surprises	Confuse a COA Wargame for a Rehearsal of Concept (ROC) Drill
Manage time ruthlessly	Try to resolve all risks and issues immediately unless critical to the plan
Red Team: challenge all assumptions	Confuse the Red Cell (enemy) with the Red Team (challenging assumptions)
Use OA if available	Manage risks at the wrong level or get sucked into the 'tactical weeds'
Record all conclusions and decisions taken	(Necessarily) allow the plan author to participate: he can overawe participants
Practise, practise, practise!	Omit Consequence Management

COA Wargaming Pre-Consideration, Set-Up and Inputs

- To properly conduct a COA Wargame the following equipment and aids are required:
 - One or more maps or charts on a bristolite or cloth model on a floor, of sufficient size and detail to enable participants to see relevant details.
 - Counters or icons to represent friendly, adversary and other actor Force Elements, humanitarians and populations to the required level of detail. These can already be on the map, or be placed as placard against their locations.
 - Chairs or benches to allow the '1st 3rd' to sit at the bristolite with supporting staff behind them, probably stood. The scribe and OA are among the 3rd's.
 - Projection facilities with relevant products ready to view.
 - Scribe's record sheet.
 - Pointers, electronic or manual.
- The following need to be pre-considered by the Chief Controller, and constitute his/her initial brief (see Sequence of Events):
 - Aim of the wargame.
 - Attendance, including role and function.
 - Mechanics (unless everyone is familiar with the COA Wargaming process).
 - Wargame turns and timings. Each turn should be defined, 'bounded' and have an allocated time in which to conduct it. The wargame turns are derived from the Commander's highest priority risks, or perceived areas of weakness in the plan. There is rarely time for 'stop-things' an entire plan, to expect discrete turns, possibly to entirely different phases of the operation, or even the repetition of a turn using different assumptions.
 - Inputs available. See draft staff products, below.
 - Recording method and the primacy of the Scribe.
 - Higher Commander's guidance, as appropriate.
 - Key estimate outcomes, as appropriate.
 - Key assumptions, as appropriate.
- The following draft staff products are required (guideline only: situation dictates):
 - Joint Action Synchronisation Matrix.
 - Concept of Operations paragraph for the overall plan and for each wargame turn, with at least an intent, Scheme of Manoeuvre and Endstate.
 - Manoeuvre schematics.
 - Target lists.
 - OSMA/TACDING products.
 - OSMA/TACDING and envisaged 'laydown' for the initial situation and each wargame turn.
- Additionally:
 - A Red Cell plan (tending towards the Most Dangerous enemy COA) and Concept of Operations for each turn. These must have been reviewed and agreed by the Chief Controller.
 - Staff and OA provided answers to likely combat outcomes, time & space calculations, CSU usage, CIBs etc. These are identified during the estimate and enough time allowed to enable considered answers to be presented during the COA Wargame.

Army Planning and Execution Handbook

Sequence of Events

COA Wargaming: Dos and Don'ts

Preparation and Set-Up

'Everything in war(gaming) is simple, but doing the simplest thing is difficult.'

Clausewitz-ish

Why COA Wargame?

Done properly, and better than your opponent,
it saves lives

COA Wargaming is second only in importance to the Mission Analysis in any military decision making process. If Mission Analysis asks 'Why?', the COA Wargame asks 'What if?'

...and hence gives your plan the best chance of surviving contact, or at least dealing with the inevitable uncertainties of operations

Why COA Wargame?

The Battle of Midway 4 - 7 June 1942

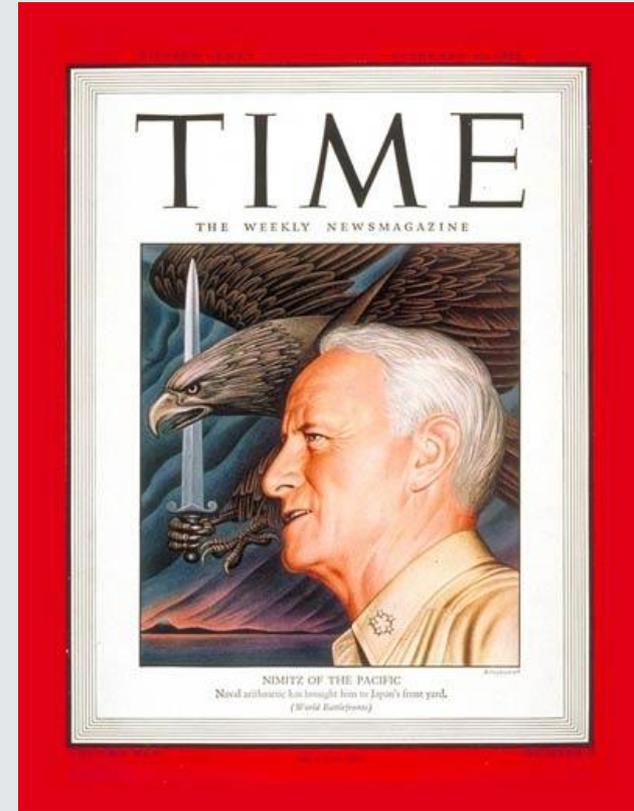
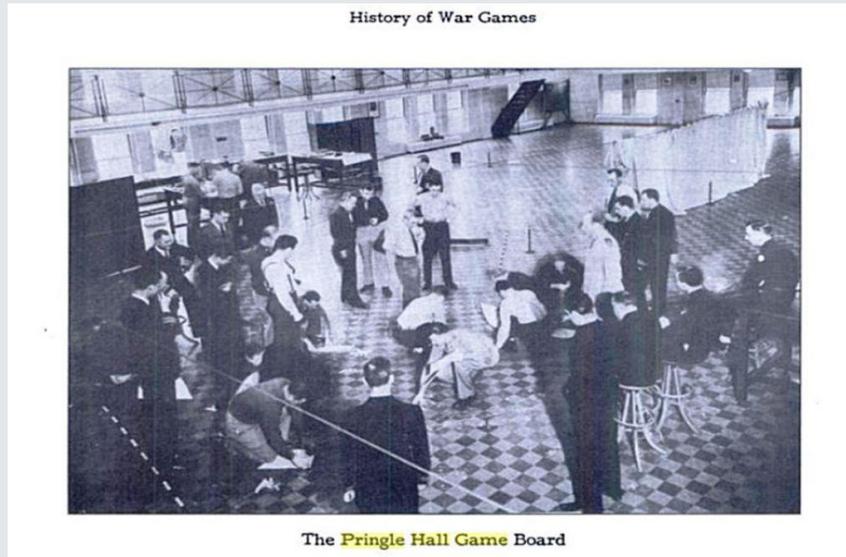
- Result?
- Did the Japanese COA Wargame it?
- Did the US COA Wargame it?



Why COA Wargame?

In a speech to the US Naval War College in 1950:

‘The war with Japan had been re-enacted in the game room here by so many people and in so many different ways that nothing that happened during the war was a surprise – absolutely nothing except the kamikaze tactics towards the end of the war; we had not visualised those.’

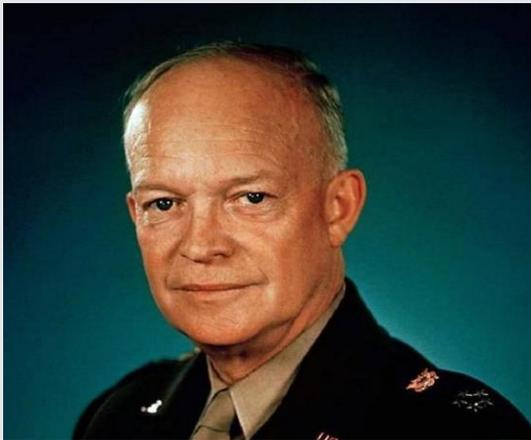


Why COA Wargame?

Wargaming D-Day:

'I consider it the duty of anyone who sees a flaw in this plan not to hesitate to say so. I have no sympathy with anyone, whatever his station, who will not brook criticism. We are here to get the best possible results.'

Eisenhower, 5 May 1944, Model Room,
HQ British 21st Army Group



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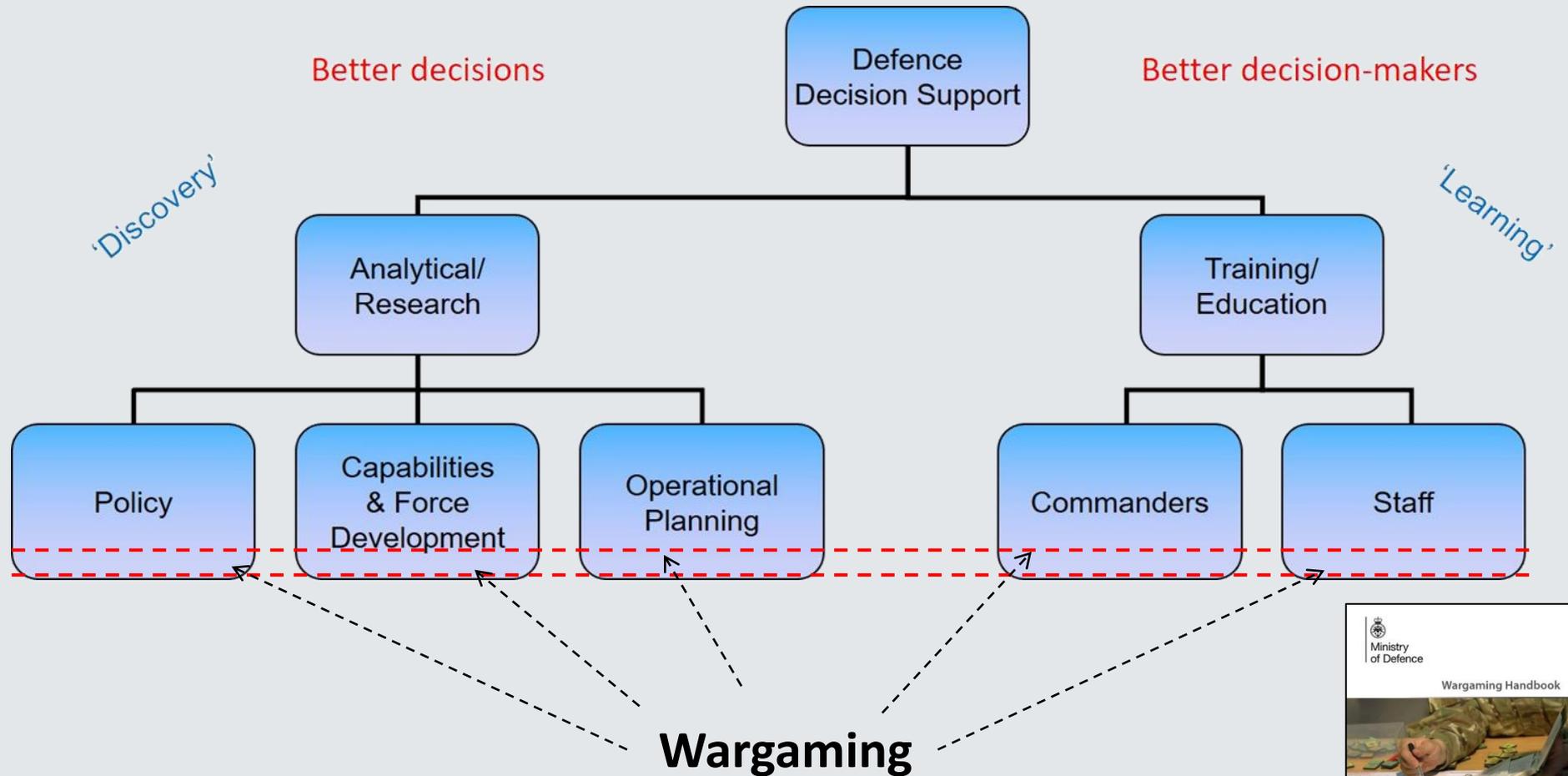
Course of Action Wargaming: Practical Recommendations

1. Why COA Wargame?
2. What is COA Wargaming?
3. When might you do it?
4. How do you do it?

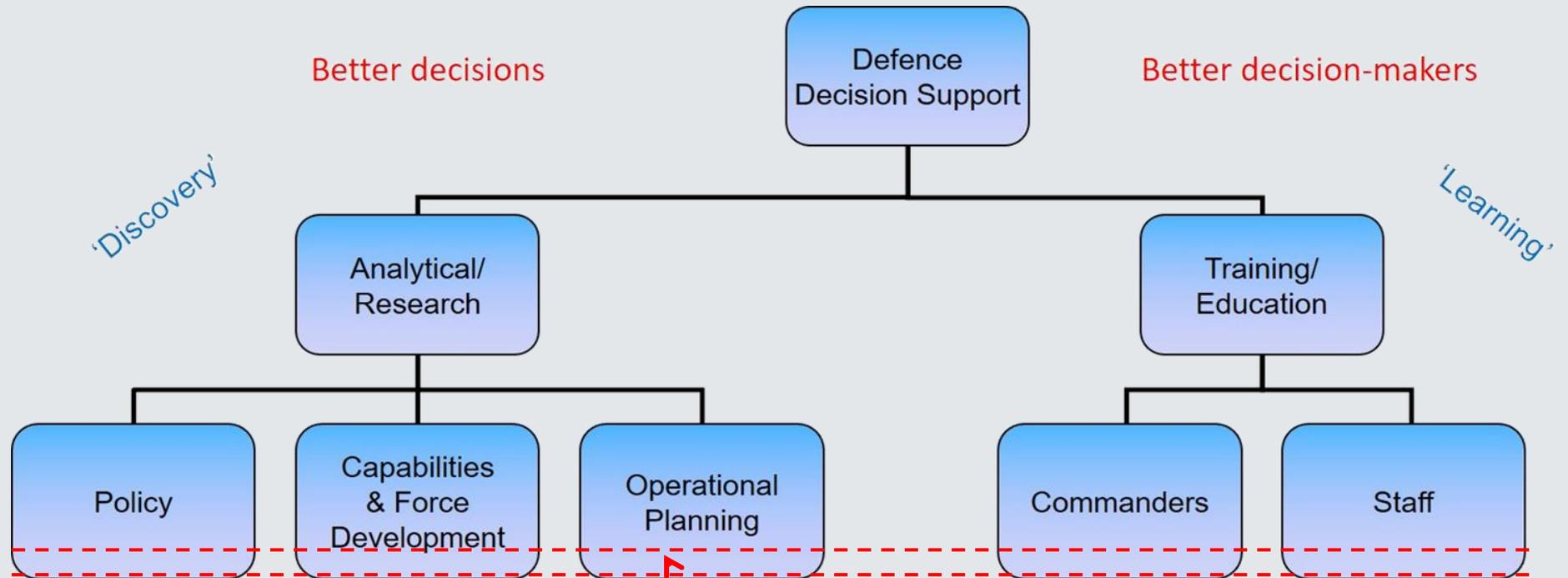
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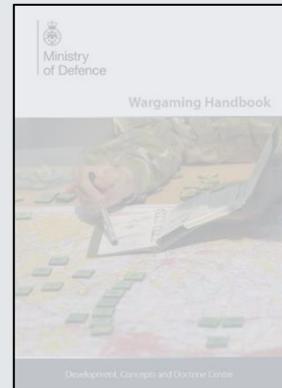
COA Wargaming in Context



COA Wargaming in Context



COA Wargaming



What is COA Wargaming?

Technique	What	Why	When
COA Wargaming	A systematic method of analysing a plan to visualise the ebb and flow of an operation or campaign	To identify risks and areas of weakness in a forming plan ‘What if’-ing	During any or all of: 1. COA development 2. COA evaluation 3. COA refinement
ROC Drill	A visual, sequenced rehearsal of a plan	To enhance understanding of a formed plan Rehearsing	After orders have been delivered
Red Teaming	The provision of honest, constructive and objective criticism to improve a commander's decision-making	To challenge assumptions and fully explore alternative outcomes to reduce threats and increase opportunities	Throughout the estimate/7 Questions process

What is COA Wargaming?

Definition: A systematic method of analysing a plan to **visualise** the ebb and flow of an operation or campaign

Purpose: To identify **risks** and **areas of weakness** in a *forming* plan:

...a **visualisation** technique that enables a **structured discussion** among SMEs to elicit their views and **inform (your) military judgement**

‘Wargames enable smart people to be smart’

What is COA Wargaming?



HQ 12
Brigade

HQ
ISAF



HQ ARRC



What is COA Wargaming?

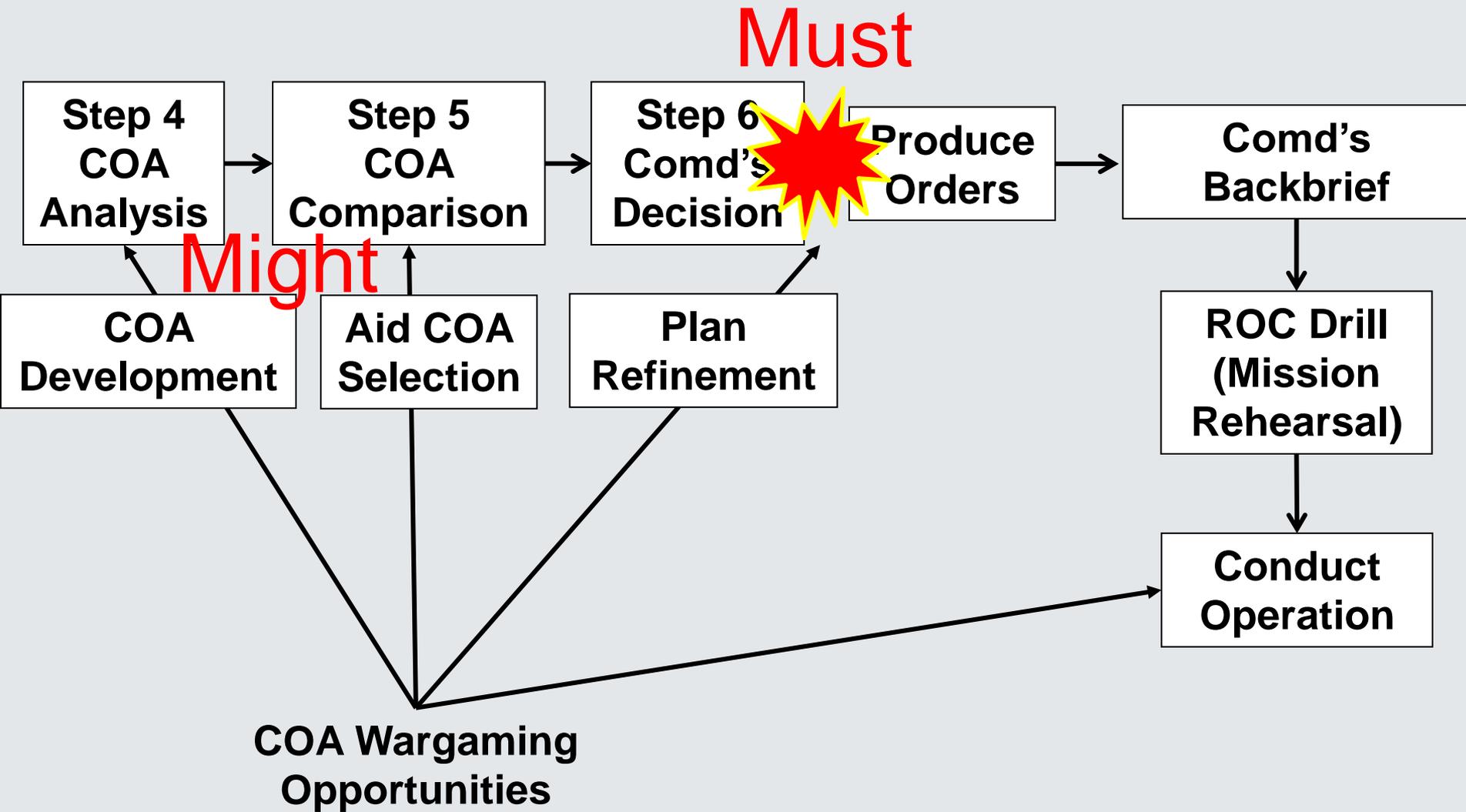
Key characteristics:

- It must be **adversarial** (and oppositional)
- It is always **time pressured**

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When to COA Wargame



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How to COA Wargame

1. Who
2. Inputs and outputs
3. Methods
4. Turn mechanics
5. Recording
6. Determining outputs
7. Dos and don'ts (Summary)

How to COA Wargame

Who:

- Chief Controller (e.g. COS or Chief J5)
- Blue Cell
 - Staff branches, advisors etc
- Green, White etc cells as required
- Other SMEs and stakeholders
- Red Cell (e.g. J2)
- Critical Thinkers (*Red Team*)
- Operational Analysis Cell
- (Commander?)

How to COA Wargame

Commander's options:

- Hand the plan to the COS to be tested, and step away until being back-briefed
- Observe from the back
- Participate, but be aware of stifling criticism ('permission to dispute')
- Play as part of the Red Cell

How to COA Wargame

COA Wargame Inputs and Outputs

Inputs	Outputs
Draft: Op Design, DCs & OEs, CONOPs, JASM, ORBATs, effects schematics, target lists etc	Decisions to mitigate identified risks and issues; and/or
Staff- and OA-provided answers to time & space calculations, likely combat outcomes, CSS usage, CIRs etc	Working group to examine identified issues in more detail and brief back
Enemy intentions, reviewed by Chief Controller, <i>tending</i> to MD	Immediate amendments to the plan

CONPLANS

How to COA Wargame

'Methods' and deriving wargame turns:

- Another characteristic: COA Wargaming is **command-led**

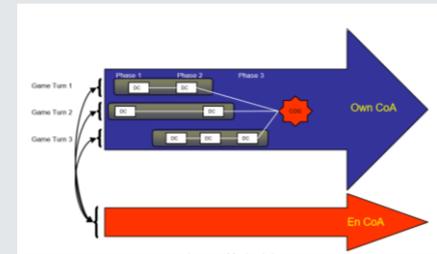
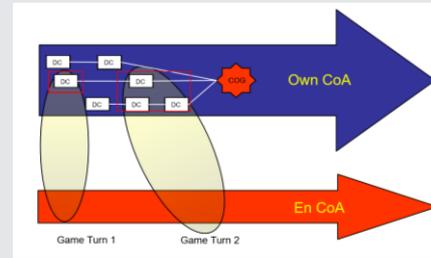
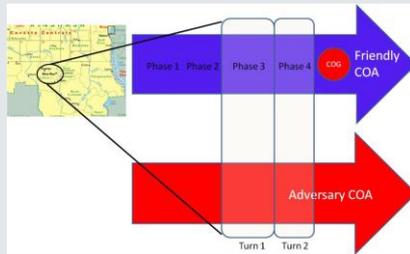
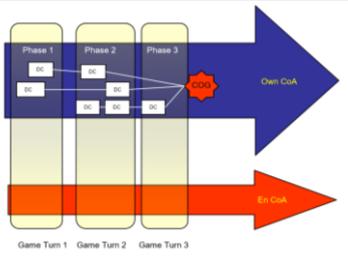
How to COA Wargame

By phases

By segments
of the
battlespace

By Decisive
Conditions and
Supporting
Effects

By line(s) of
operation



Or ...Belt

Box

Avenue in Depth

It really doesn't matter!

How to COA Wargame

‘**Methods**’ and deriving wargame turns:

- Another characteristic: COA Wargaming is **command-led**

...so the commander's top risks and areas of concern become the wargame turn(s)

Then apply common sense to bound these in space, time etc. They can include conceptual risks

How to COA Wargame

Turn Mechanics:

Ser (a)	Event or Activity (b)	Person Responsible (c)	Remarks (d)	
Preliminaries				
1.	Initial brief: <ul style="list-style-type: none"> • Aim • Attendance: role and function • Mechanics • Wargame turns and timings • Inputs available • Recording • Higher Commander's guidance • Key estimate outcomes • Key assumptions 	Chief Controller (usually COS or Chief J5)	See 'Set-Up' handout	
2.	Adversary review	J2/Red Cell		CONOPs or ends, ways, means to the required level of detail
3.	Armed Non-State Actor (ANSA) and Organised Crime (OC) reviews	J2/Red, Orange ¹ and Black ² Cells		As required
4.	Humanitarian and Human Terrain reviews	White Cell and CULAD		As required
5.	Wider planning context	J5, J35 or POLAD		As required
6.	Friendly Forces review, including HN and Coalition partners	Blue/Green Cells: J3 or lead branch		CONOPs or ends, ways, means to the required level of detail
7.	Joint Action review	J3		From JASM, as required
8.	J-Branches review	By J-Branch		As required. Component, HN and Coalition partners input likely
For Each Wargame Turn				
9.	Cell A Action ³	J3 or lead branch plus J-Branches; or J2/Red Cell	Starting situation then CONOPS or ends, ways, means to the required level of detail, with likely input from J-Branches, Components and partners	
10.	Cell B Reaction			
11.	Frictions and oppositional factors	Red Team ⁴	Challenge assumptions as necessary	
Short break for OA and Chief Controller consideration				
12.	Adjudication of Outcomes	OA (if present) or Chief Controller judgement	Best case, worst case and most likely outcomes, then selected outcome	
13.	Cell A Consideration ⁵	J3 or lead planning branch	Having heard the Action, Reaction and Outcomes, what would Cell A ⁵ now do?	
14.	'What if' considerations	Chief Controller	Examine alternatives	
15.	Consequence Management	White Cell, POLAD, CULAD, LEGAD	Brainstorm possible unintended consequences	
16.	Cognition Phase	Chief Controller/ Scribe	Confirm understanding, consolidation and recording of outcomes	
Repeat sers 9 – 16 as necessary				
After final turn				
17.	Recording confirmation	Scribe	Summarise key findings, as required	
18.	COA Wargame summary	Chief Controller	Summarise key outputs and provide D&G, as required	

For Each Wargame Turn

9.	Cell A Action ³	J3 or lead branch plus J-Branched; or J2/Red Cell	Starting situation then CONOPS or ends, ways, means to the required level of detail, with likely input from J-Branched, Components and partners
10.	Cell B Reaction 'Impulses'		
11.	Frictions and oppositional factors	Red Team ⁴	Challenge assumptions as necessary

Short break for OA and Chief Controller consideration

12.	Adjudication of Outcomes	OA (if present) or Chief Controller judgement	Best case, worst case and most likely outcomes, then selected outcome
13.	Cell A Consideration ⁵	J3 or lead planning branch	Having heard the Action, Reaction and Outcomes, what would Cell A ⁵ now do?
14.	'What if' considerations	Chief Controller	Examine alternatives
15.	Consequence Management	White Cell, POLAD, CULAD, LEGAD	Brainstorm possible unintended consequences
16.	Cognition Phase	Chief Controller/ Scribe	Confirm understanding, consolidation and recording of outcomes

Repeat sers 9 – 16 as necessary

Don't be afraid to repeat, or vary order, as required...

...so serial timings must be flexible

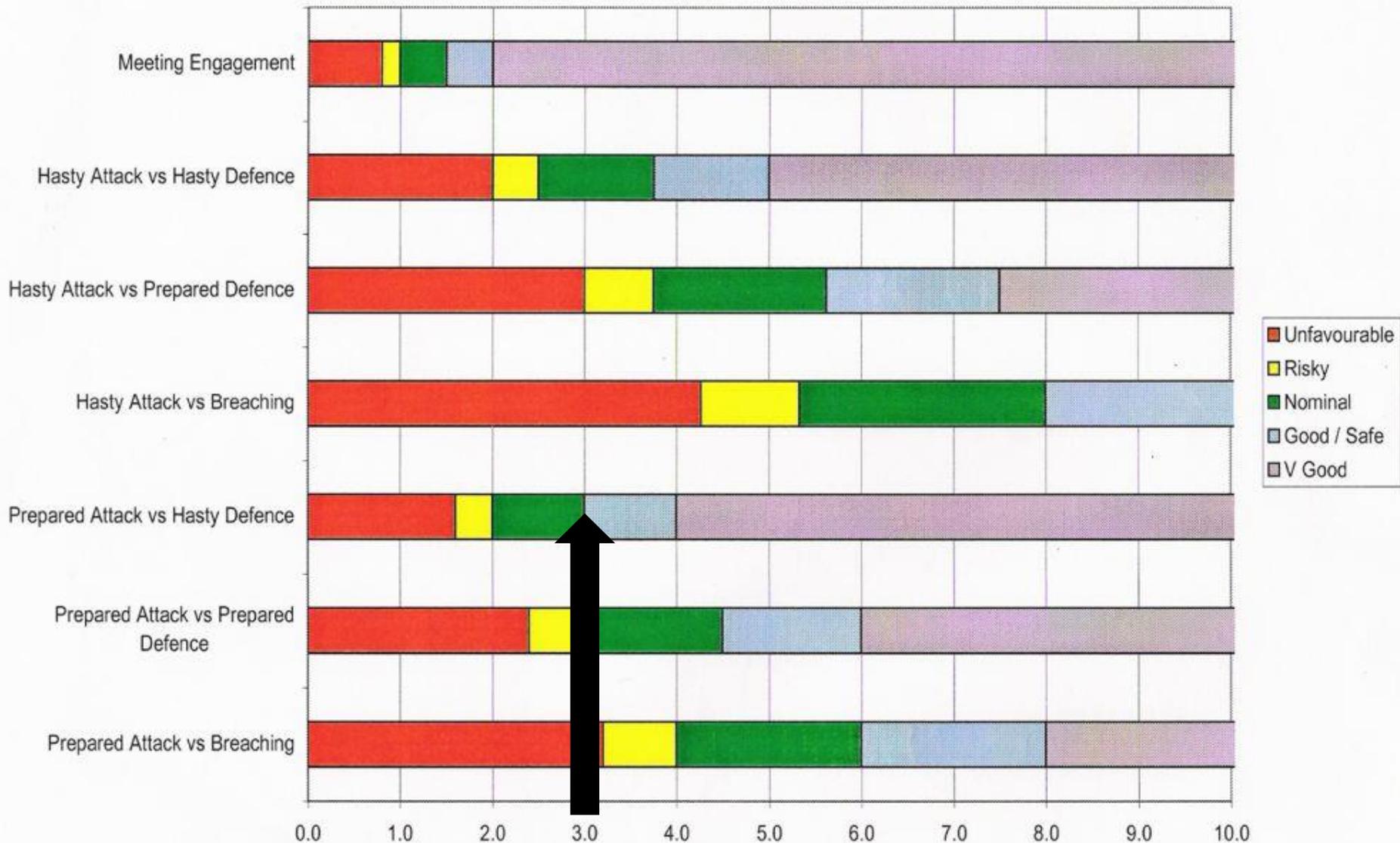
Recording

Ser	Action	Reaction	Outcomes	CM	Counteraction	Risks/ Conclusions
(a)	(b)	(c)	(d)	(e)	(f)	(g)

Determining Outcomes

- Computer simulations?
- Army Planning and Execution Handbook (PEHB): force equivalency ratios and casualty estimator
- Operational Analysis (OA)
- Military Judgement

Force Ratio Risk Levels



Summary

Do	Do Not
Ensure the process is command-led. Focus on the commander's prioritised concerns with the plan; these become the wargame turns	Forget the aim of COA Wargaming: to stress-test the plan to identify risks and areas of weakness
Prepare thoroughly, explain and then follow the procedures (Sequence of Events <i>not</i> in doctrine)	Worry about what you call the technique used (belt, box, by phase, by DC etc)
Ensure the Red Cell is empowered and plays to win using all capabilities: they should tend towards their most dangerous COA, but with no surprises	Confuse a COA Wargame for a Rehearsal of Concept (ROC) Drill
Manage time ruthlessly	Try to resolve all risks and issues immediately unless critical to the plan
Critical Thinking: challenge all assumptions	Confuse the Red Cell (enemy) with the Red Team (challenging assumptions)
Use OA if available	Manage risks at the wrong level or get sucked into the 'tactical weeds'
Record all conclusions and decisions taken	(Necessarily) allow the plan author to participate: he can overawe participants
Practise, practise, practise!	Omit Consequence Management

Frictions *will* occur

And the enemy has a vote, so...

Run to the pain!



‘Wargames enable smart people to be smart’

Questions?