Course of Action Wargaming Introduction
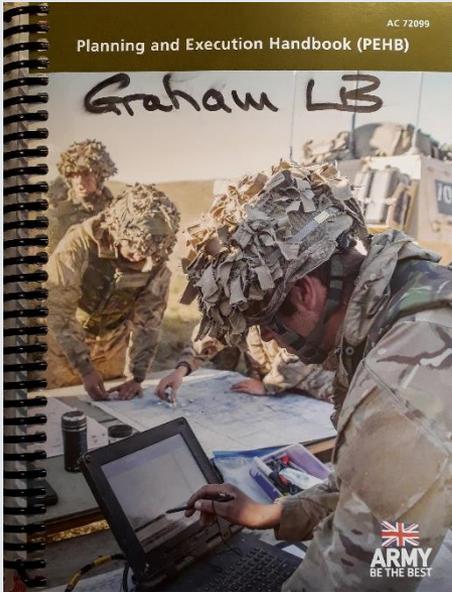
Course of Action Wargaming: Practical Recommendations

Graham Longley-Brown

References

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.'

History of War Games

The Pringle Hall Game Board

TIME
THE WEEKLY NEWSMAGAZINE

NIMITZ OF THE PACIFIC
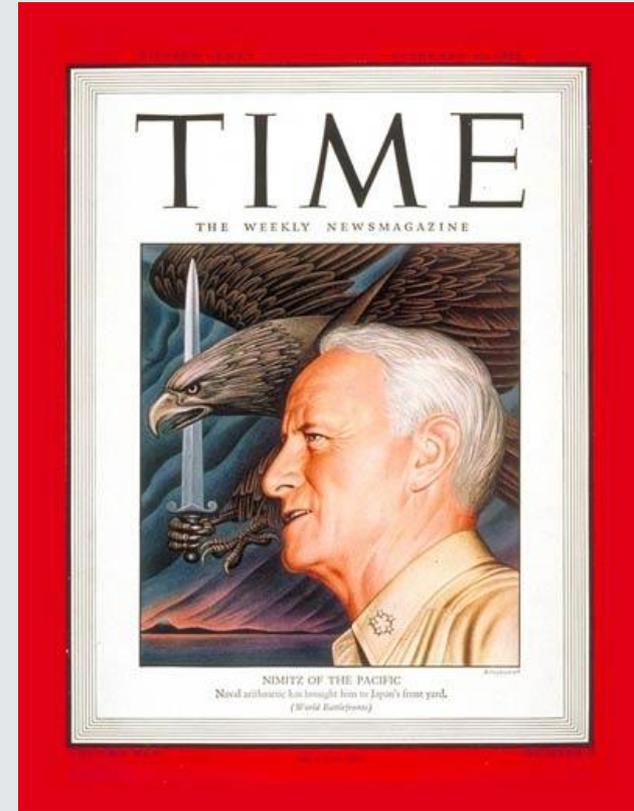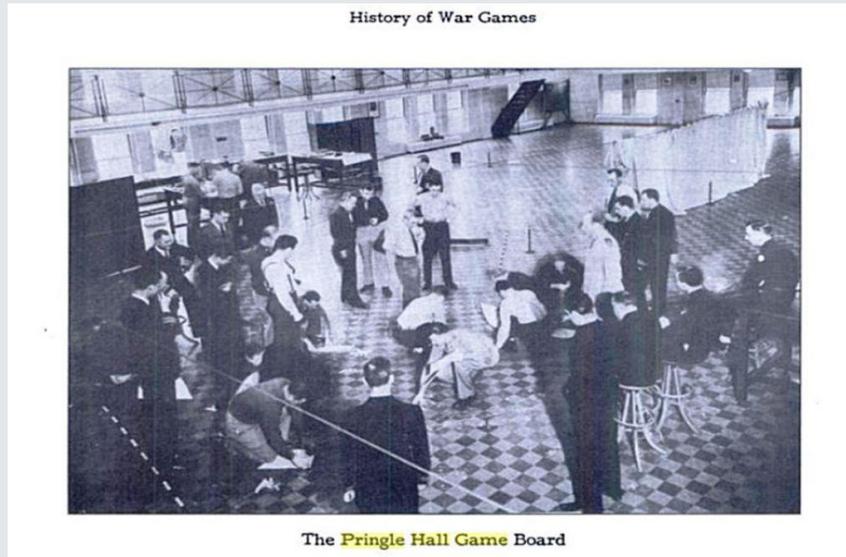
Why COA Wargame?

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
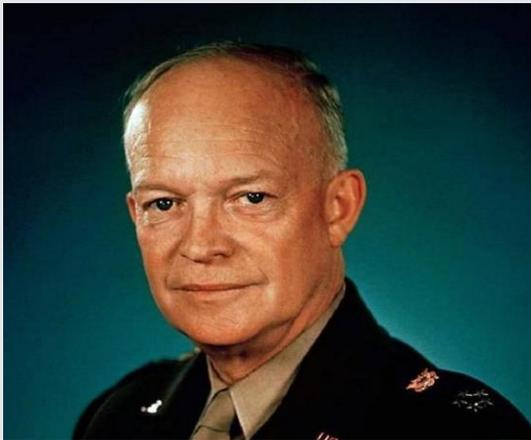
Why COA Wargame?

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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

Better decisions

'Discovery'

'Learning'

Better decision-makers

Defence Decision Support

Analytical/ Research

Training/ Education

Policy

Capabilities & Force Development

Operational Planning

Commanders

Staff

Wargaming

Ministry of Defence

Wargaming Handbook

Development, Concepts and Doctrine Centre

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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 form*ing* 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 form*ed* 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 form***ing*** 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
ISAF

HQ 12
Brigade

HQ ARRC

What is COA Wargaming?

Key characteristics:

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

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?

When to COA Wargame
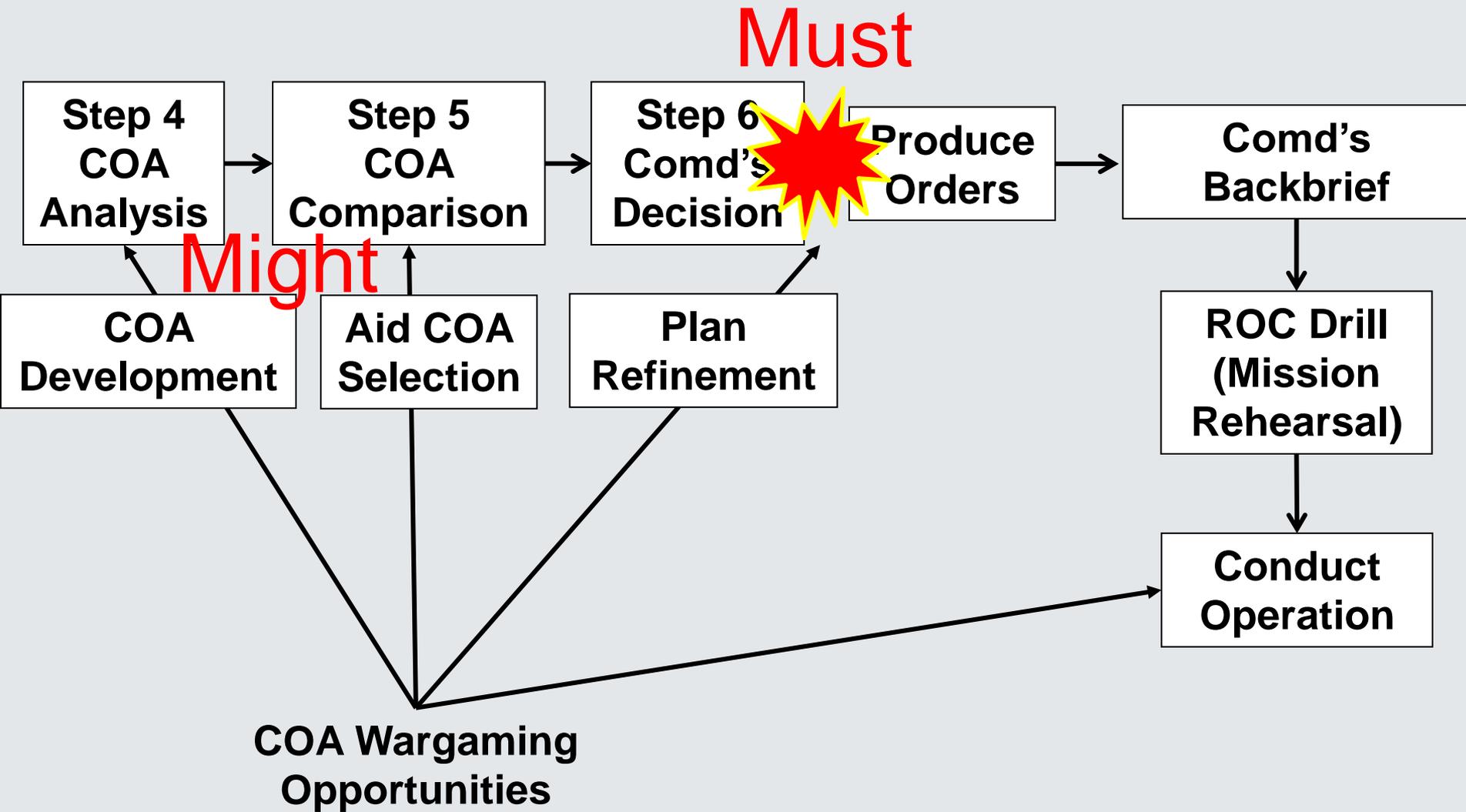
Must

```
Step 4          Step 5           Step 6          Produce         Comd's
COA      →      COA      →       Comd's          Orders    →     Backbrief
Analysis        Comparison       Decision
```

Might

```
COA             Aid COA          Plan
Development     Selection        Refinement
```

ROC Drill
(Mission
Rehearsal)

Conduct
Operation

COA Wargaming
Opportunities

Course of Action Wargaming: Practical Recommendations

1. Why COA Wargame?

2. What is COA Wargaming?

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4. How do you do it?

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 groups examine identified risks and issues in more detail and brief back
Enemy intentions, reviewed by Chief Controller, *tending* 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:

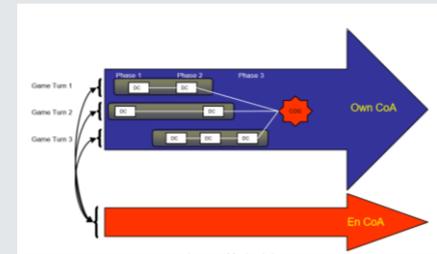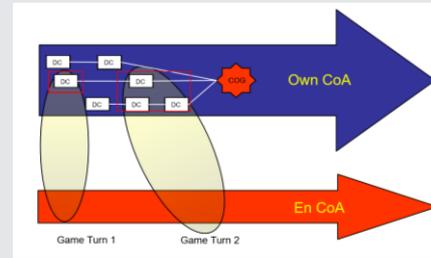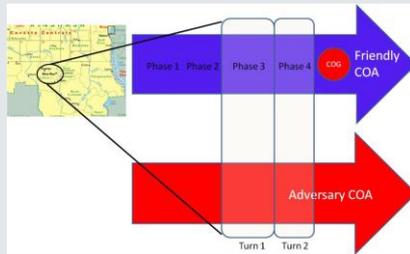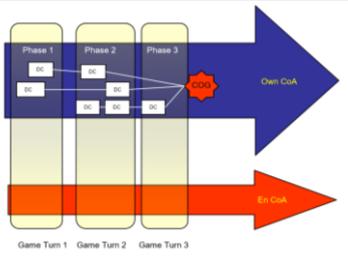| Ser (a)	Event or Activity (b)	Person Responsible (c)	Remarks (d)
Preliminaries			
1.	Initial brief: • Aim • Attendance: role and function • Mechanics • Wargame turns and timings • Inputs available • Recording • Higher Commander's guidance • Key estimate outcomes • Key assumptions	Chief Controller (usually 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-Branches;	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	or J2/Red Cell	
11.	**Frictions** and oppositional factors	Red Team[4]	Challenge assumptions as necessary
Short break for OA and Chief Controller consideration			
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Repeat sers 9 – 16 as necessary			

'Impulses'

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

Legend:
- Unfavourable
- Risky
- Nominal
- Good / Safe
- V Good

Categories (top to bottom):
- Meeting Engagement
- Hasty Attack vs Hasty Defence
- Hasty Attack vs Prepared Defence
- Hasty Attack vs Breaching
- Prepared Attack vs Hasty Defence
- Prepared Attack vs Prepared Defence
- Prepared Attack vs Breaching

X-axis: 0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0
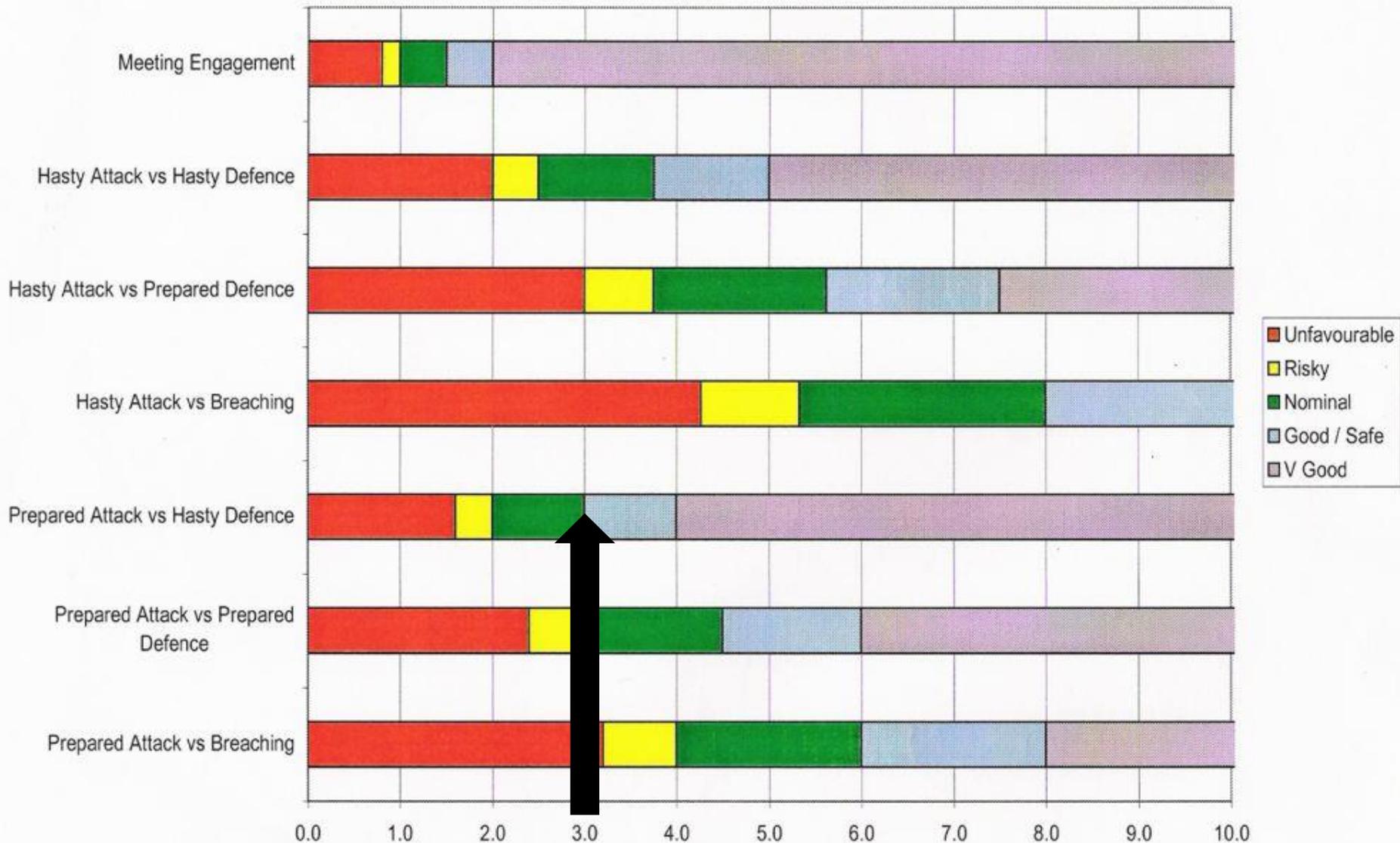
Summary

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 *not* 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 particpiants
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?