



Connections UK

Improving Methods, Models and Tools:

Red Teaming Workshop

Overview

- Introductions
- Rationale for workshop
- Workshop purpose
- Workshop format

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Contention:

*Whereas wargaming **might** feature as part of a Red Teaming approach, Red Teaming **must** feature in all serious wargaming.*

AN INTRODUCTION TO WARGAMING

THE SIMPLEST REPRESENTATION OF A WARGAME

Adversarial

Understand the adversary's:

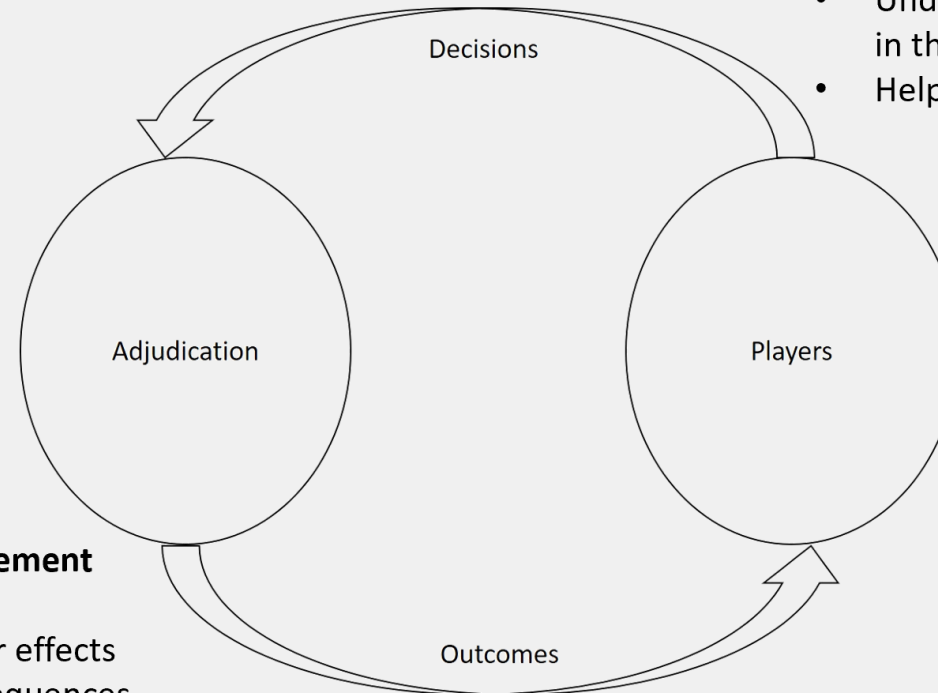
- Perceptions of Blue actions
- Intent
- Reaction options
- Decision calculus

Red Teaming

- Identify and mitigate cognitive biases
- Challenge invalid assumptions and beliefs
- Identify risks and issues
- Identify flaws in logic
- Identify different options and alternatives
- Understand and assign confidence levels in the wargame and its outcomes
- Help assure outcomes

Adjudication:

- (The Hard Bit)

**Consequence Management**

Identify:

- 2nd and 3rd order effects
- Unforeseen consequences
- 'Backfires'

‘The most serious error made in planning by Ukraine appears to have been the basis on which it was determined that the main effort could succeed... Rather than using tempo and concentration... it was hoped that shock action would cause Russian troops to break, as had occurred around Kharkiv in 2022. Insufficient planning was done to assess how the critical conditions for such a collapse in morale could be achieved, so that this proved an overly optimistic planning assumption’.

Preliminary Lessons from Ukraine’s Offensive Operations 2022–23, Royal United Services Institute

‘Ukrainian, US and British military officers held eight major tabletop wargames to build a campaign plan. But Washington miscalculated the extent to which Ukraine's forces could be transformed into a Western-style fighting force in a short period - especially without giving Kyiv air power integral to modern militaries... US military officials were confident that a mechanised frontal attack on Russian lines was feasible with the troops and weapons that Ukraine had.’

Stalemate: Ukraine's failed counteroffensive. Miscalculations, divisions marked offensive planning between US, Ukraine, Washington Post, 4 December 2023



Ukraine

War of attrition

6. Modern (2 to us)
 7. O-M
 7. ↑ Ukr logs ↓ Rus logs

An interview with Ukraine's commander-in-chief on the breakthrough he needs to beat Russia

FIVE MONTHS into its counter-offensive, Ukraine has managed to advance by just 17 kilometres. Russia fought for ten months around Bakhmut in the east "to take a town six by six kilometres". Sharing his first comprehensive assessment of the campaign with *The Economist* in an interview this week, Ukraine's commander-in-chief, General Valerii Zaluzhnyi, says the battlefield reminds him of the great conflict of a century ago. "Just like in the first world war we have reached the level of technology that puts us into a stalemate," he says. The general concludes that it would take a massive technological leap to break the deadlock. "There will most likely be no deep and beautiful breakthrough."

The course of the counter-offensive has undermined Western hopes that Ukraine could use it to demonstrate that the war is unwinnable, forcing Russia's president, Vladimir Putin, to negotiate. It has also undercut General Zaluzhnyi's assumption that he could stop Russia by bleeding its troops. "That was my mistake. Russia has

lost at least 150,000 dead. In any other country such casualties would have stopped the war. But not in Russia, where life is cheap and where Mr Putin's reference points are the first and second world wars, in which Russia lost tens of millions.

An army of Ukraine's standard ought to have been able to move at a speed of 30km a day as it breached Russian lines. "If you look at NATO's text books and at the maths which we did, four months should have been enough time for us to have reached Crimea, to have fought in Crimea, to return from Crimea and to have gone back in and out again," General Zaluzhnyi says sardonically. Instead he watched his troops get

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32 Poland's military ambitions

— Charlemagne is away

stuck in minefields on the approaches to Bakhmut in the east, his Western-supplied equipment getting pummeled by Russian artillery and drones. The same story unfolded on the offensive's main thrust in the south, where inexperienced brigades immediately ran into trouble.

"First I thought there was something wrong with our commanders, so I changed some of them. Then I thought maybe our soldiers are not fit for purpose, so I moved soldiers in some brigades," says General Zaluzhnyi. When those changes failed to make a difference, the general told his staff to dig out a book he once saw as a student. Its title was 'Breaching Fortified Defence Lines'. It was published in 1941 by a Soviet major-general, P.S. Smirnov, who analysed the battles of the first world war. "And before I got even halfway through it, I realised that is exactly where we are because just like then, the level of our technological development today has put both us and our enemies into a stupor."

That thesis, he says, was borne out as he went to the front line in Avdiivka, also in the east, where Russia has recently advanced by a few hundred metres over several weeks by throwing in two of its armies. "On our monitor screens the day I was there we saw 140 Russian machines ablaze—destroyed within four hours of coming within firing range of our artillery." Those fleeing were chased by "first-person-view" drones, remote-controlled and

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Workshop purpose:

- Develop understanding of Red Teaming good practice to improve its application within wargames
- Identify gaps/barriers to the use of Red Teaming within the wargaming process
- Capture an understanding of what can/has gone wrong with approaches to Red Teaming and how this can be mitigated

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Interactive and dynamic, covering:

- Definitions
- Benefits
- Applications
- Pathologies (what can go wrong) and mitigations
- Best practice/Quick Wins

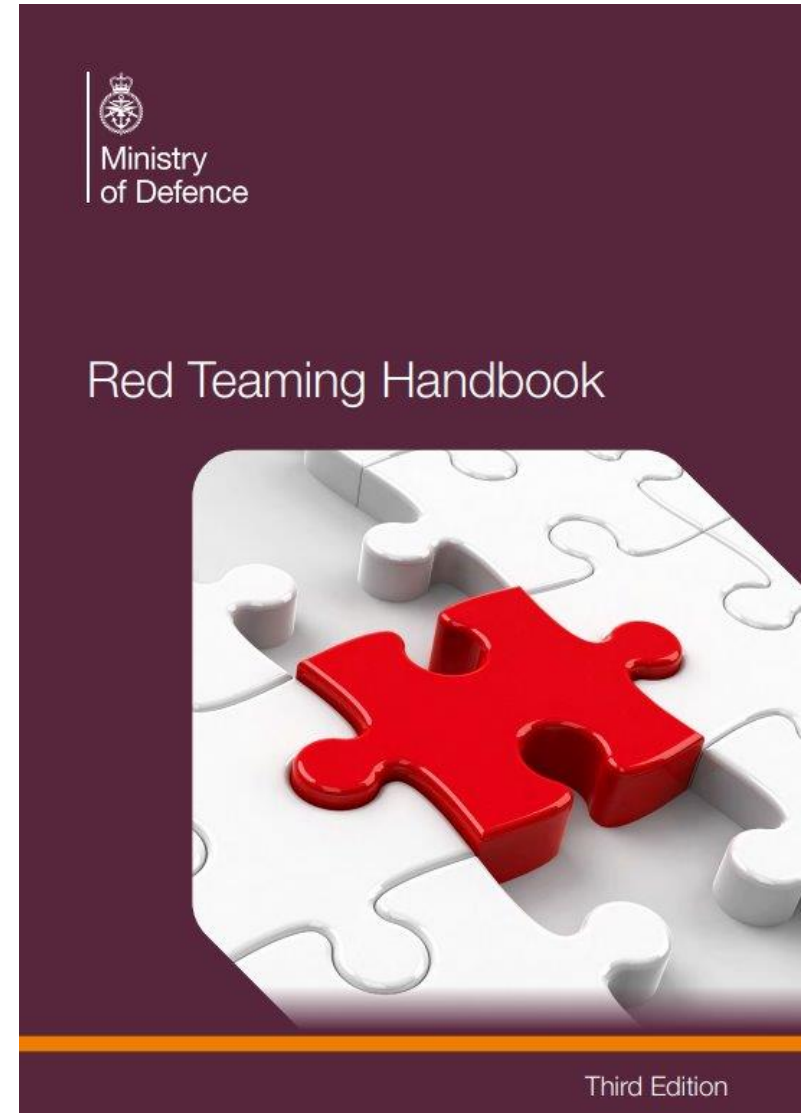
Definitions

- x Red Cell
- x Security Penetration Testing
- x Formal Standing Red Team

Red team: *“A team that is formed with the objective of **subjecting an organisation’s plans, programmes, ideas and assumptions to rigorous analysis and challenge**”*

Red Team mindset: *“A philosophy or state of mind where problem solvers and decision-makers **apply red teaming techniques** and approaches **to everyday challenges and problems routinely**. It is a habitual mode of thinking and working that involves fast and efficient approaches in time-pressured scenarios across a range of situations and levels within an organisation. The concept of a red team mindset is very similar to **critical thinking**.”*

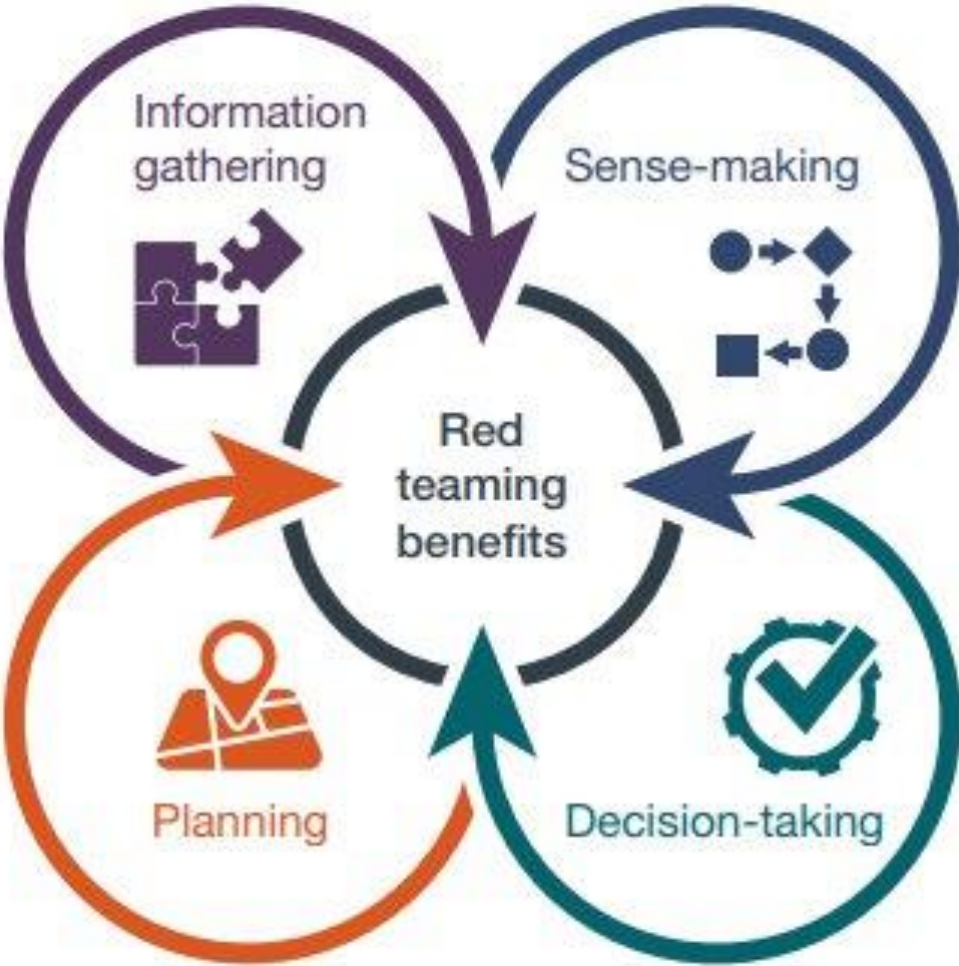
(Red Teaming Handbook Third Edition)



Benefits

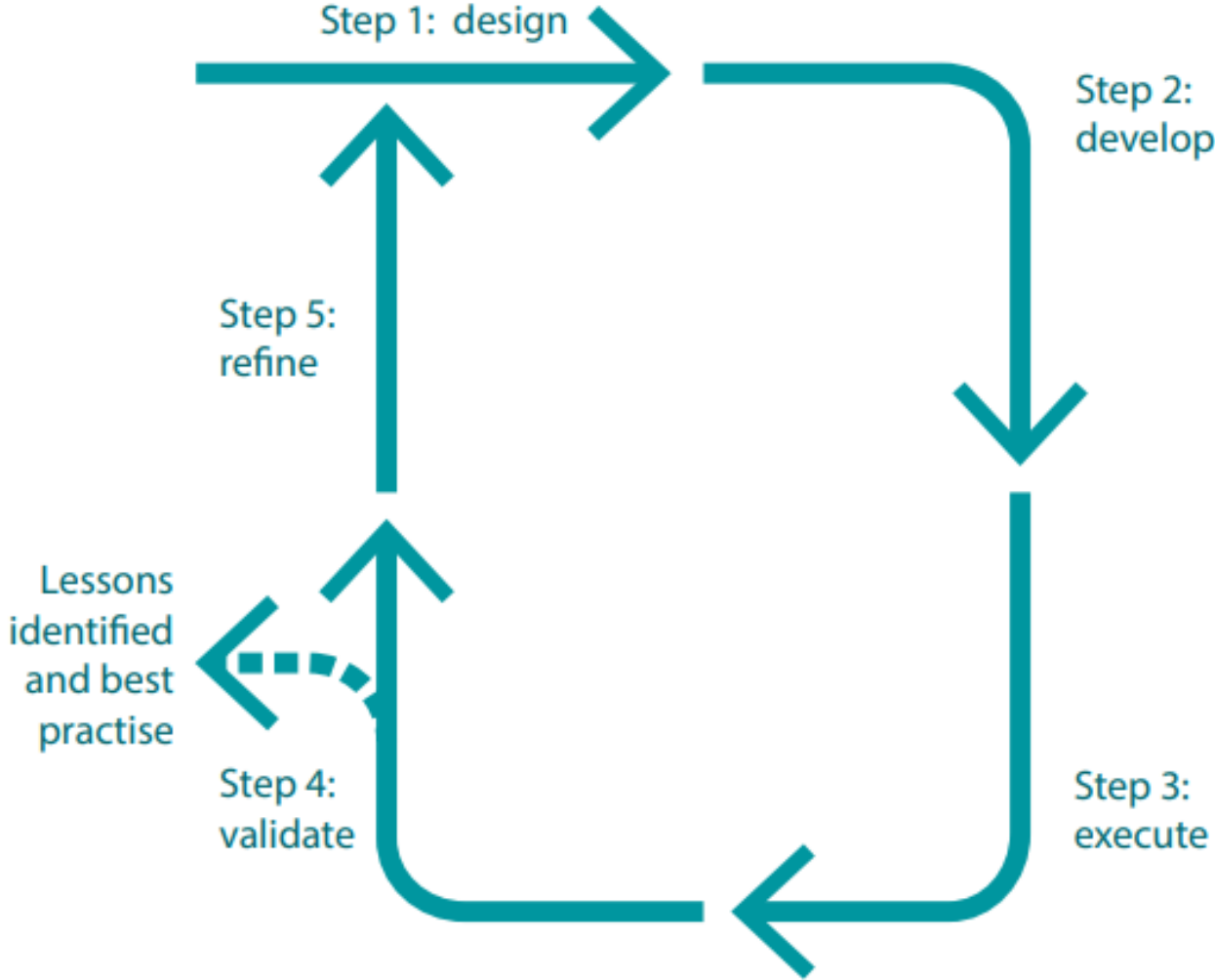


Application



Decision-making cycle

[Red Teaming Handbook - DCDC](#)



Decisions are made at each step of the wargaming cycle

Pathologies (what can go wrong)

- DCDC Red Team Handbook:
 - Uncover hidden biases
 - Challenge assumptions and beliefs
 - Identify flaws in logic
 - Widen the scope of information searches
 - Identify different options
 - Stress-test the plan
- Things that have gone wrong
 - Challenge introduced into the system or process too late
 - Heavily caveated outputs, almost to the point of being unusable
 - Unrecognised Bias
 - In the design phase:
 - *Wrong methodology used because taking advantage of some efficiencies undermined the value of the specific wargame*
 - In the execution:
 - *Too much credibility given to an authority figure by some players led to conflict among the players and undermined the game*
 - *Some players couldn't match the wargame rules and scenario to their personal experiences*
 - *Wargame experts too invested in winning (the game becoming more important than the thing being represented)*
 - In the analysis and exploitation
 - *The outputs didn't match the stakeholders' desired output*



Mitigations (*While Wargaming*)

1. Is a wargame the right methodology for this problem? Is this the right wargame for this problem? Why do I/we think that *this* wargame is the right one?
 - a. This is the approach I think is the right one
2. Design:
 - a. Is this the right question?
 - b. How do we shape the wargame to answer the question but without adversely affecting the insights and outputs?
 - c. Is the logic flow sound?
 - d. Would more information change anything? (This is a balance!)
3. Execution:
 - a. Players base their actions on their experience (its why they are there!) but this can be a two edged sword
 - b. Do players match our expectations of what they will do and how they will do it? Is this right? How do we identify and challenge bias that appears as SME judgement?
4. Analysis and Exploitation:
 - a. Have we pitched the output at the right level and will it accurately and objectively record the findings?

Best Practice/Quick Wins

1. Liberating Structures (e.g. everyone speaks once, before anyone speaks twice – seniors speak last)
2. “Can I just offer some challenge?” – be explicit, and clear
3. Include challenge as a standing agenda item
4. Portray “challenge” as critical thinking: it can be done within the project by the team delivering it as part of the process, as well as by outsiders brought in for the purpose: and it’s a useful skill!
5. Don’t leave it until the end of the process

Questions?

Further Resources

Red Teaming

- [DCDC Red Team Handbook \(Oct 2021\)](#)
- [US Army Red Team Handbook](#)
- [Bryce Hoffman – Red Teaming Book](#)
- [Micah Zenko – Red Teaming Book](#)

Challenge

- [The good operation: a handbook for those involved in operational policy and its implementation, including the Defence Reasonable Challenge Guide \(Jan 2018\)](#)
- [Ideas for Leaders: Changing the Way we think: Speaking Truth to Power](#)
- [Podcast: Meet the Defence Expert Whose Job is to Play Devil's Advocate to the British Army](#)

Decision-making culture

- [War on the Rocks - A GUIDE TO BETTER NATIONAL SECURITY DECISION-MAKING \(Dec 2017\)](#)
- [Civil Service Blog -Diversity leads to better decision-making \(Mar 2022\)](#)
- [Mission Critical Improving National Security Culture, Diversity & Inclusion Toolkit \(2021\)](#)
- [Defence Intelligence Futures Analytical Methods Team - Quick Wins for Busy Analysts \(Nov 2016\)](#)
- [Royal College of Defence Studies - Making Strategy Better: A guide for more effective strategy-making and its application \(2022\)](#)
- [2023 Modern Civil Service Blog - Skills: Wargaming and Red Teaming - How the MoD is challenging defence thinking](#)