



# Wargaming and red-teaming

Advanced analytical techniques to improve red-team performance

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# Wargaming the worst scenario

- Need to conceptualize deterrence and the costs of nuclear war – some things *can't/shouldn't* be tested in real-life
- Immense intellectual contestation in the 1950s between the Mathematical Analytics Division (MAD) and the Social Sciences Division (SSD).
- Wargaming had been modified to make it a method for solving problems previously thought to be beyond analysis and answerable only by appeal to the judgment of experts.



# Turning uncertainty into calculated risks [MAD]

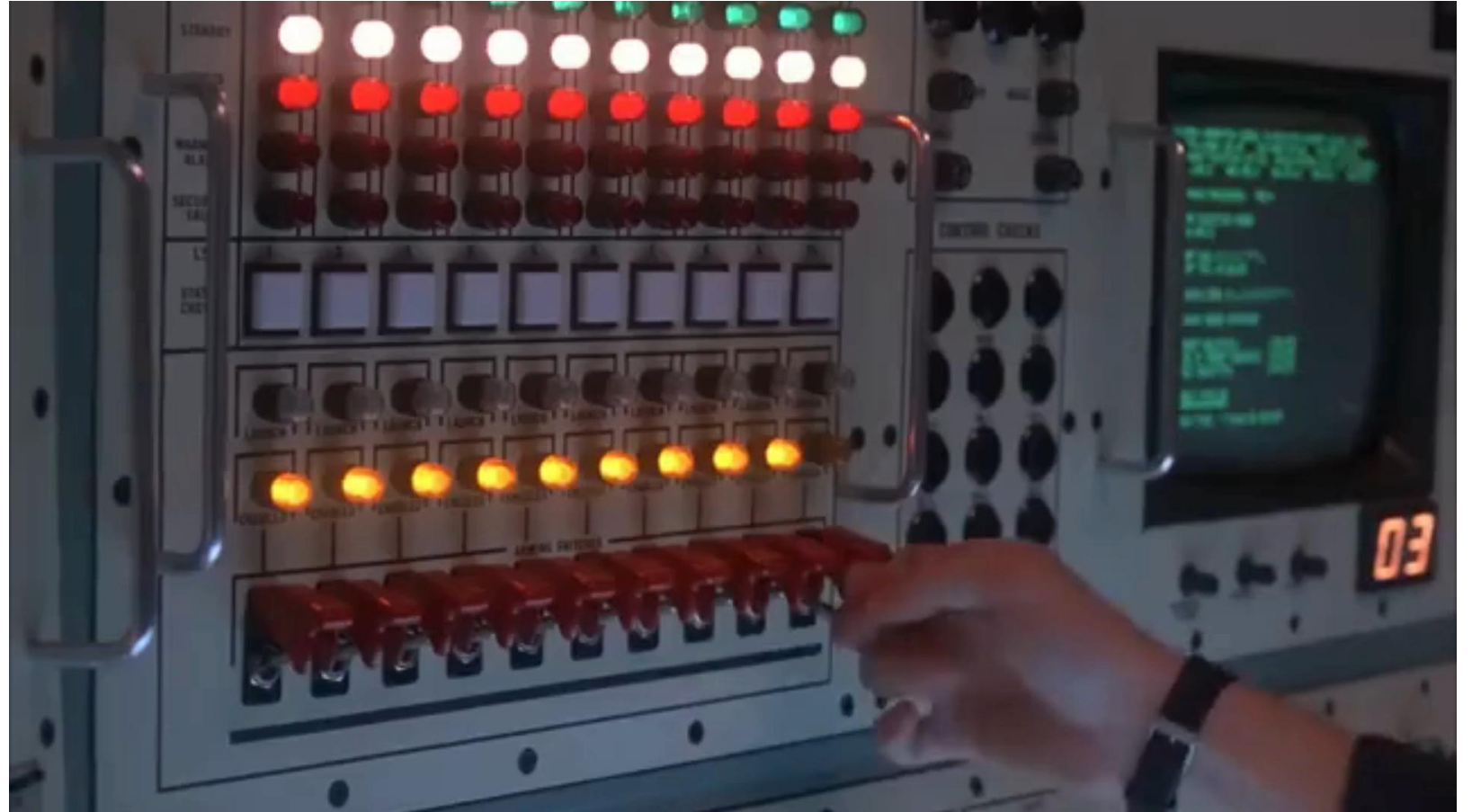
Table 1: MAD table on effects of an H-bomb attack

Effect of H-attack		Cap. Loss	Pop. Loss	Mil. Loss
Level 1	if attacker was not hit previously, that year, and target country was not hit last year	50%	30%	30%
Level 2	otherwise	30%	15%	15%
Level 3	all cases	60%	40%	30%

*In all cases 25% of effective population to emergency service next year. If more than one attack in same year, use maximum.<sup>47</sup>*

# Human and machine decision-making

- “elite wargame players rarely made explicit arguments about the immorality of nuclear weapons.”
- Enter: consequences of our own actions
- decision-making authority located in the individual, rather than the model, equation, or computer simulation.



Whenever we are war-gaming, some aspect of military warfare, we are doing so as a substitute for **experimentation**. Actual experimentation, which would involve for instance, the dropping of bombs on armies and factories, is of course impossible, so we set up a model situation which, by way of numerous analogues, **simulates the real situation as closely as possible**.

# Commonly observed problems

1. Players take on a historical persona related to the topic, playing out stereotypes rather than the reality
2. Players like to test the system, “see what happens” or play to their personal preference
3. Players opt for extremes: “the most logical” or “the most aggressive” decisions
4. There is no structure to capture the approaches related to a specific red-teaming challenge
5. We dictate much of what will happen just by producing the briefing

# Experiment “costly concessions”



- Hypothesis: is there a set of conditions which would cause Russia to accept peace accords?
- Experiment: 24 sessions with participants (non-English speakers, Eastern Europeans, different backgrounds)

# Day After Putin – understanding red team's future



# How to improve red-team's performance?



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## For military staff across Europe, wargaming is all the rage

EXPLAINER EUROPE

Once dismissed as frivolous, wargames have emerged as crucial strategic tools amid rising global tensions. A recent simulation at Paris's École Militaire, where 500 participants played out high-intensity conflict scenarios, reflects a growing international trend toward gamified military preparedness.

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By: [Lara BULLENS](#)



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# Four main directions to develop

- **Kriegspiel competition**– making red-teams competitive, showing the differences in planning and building a portfolio of options rather than one solution
- **WATU tactics review**– introducing after action reports to understand the enemy instead of declaratory analysis (“this is what I think they would do”)
- **Multiplicity**– structuring and comparing different approaches of a specific red-team played out
- **Non-military wargaming** – experimenting with political, psychological and cultural models changing the rational decision-making



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