

How an opponent wargames

An Intelligence Requirement for Understanding Adversaries

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The opinions contained in this briefing are those of the author; He does not know, nor care, if they are policy of any organization, including yours.

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Introduction

What an opponent wargames and the results of those wargames are obvious intelligence collection requirements. Examples include scenarios, novel concepts, new platforms and weapon systems, and operational plans. Obviously, we would like to know about these.

How an opponent wargames includes topics such as the methods, techniques and styles of gaming used, the beliefs and psychological biases of the players, how they perform, how seriously their chains of command treat wargame results and participants. This information can tell us something about how they might perform during the future conflict that they are currently wargaming.

I propose that studying how a real world opponent approaches wargaming and the wargame performance of selected military and political leaders should be an intelligence collection requirement. In this briefing I propose an analytic framework for answering the wargame intelligence question based on the purpose of the wargame and the environment in which the opponent players are embedded and discuss what we can learn from assuming our opponents are collecting the same intelligence on how we wargame.

Finally, since intelligence collection and deception go hand in glove, I touch on how exposing a wargame might be used to support real deception in the real world operation the wargame is playing.

What is Wargaming? What is it not?



“A warfare model or simulation, using rules, data, and procedures, not involving actual military forces, and in which the flow of events is affected by, and in turn affects, decisions made during the course of those events by players representing the opposing sides.”

Perla, P. *The Art of Wargaming*, Naval Institute Press, 1990, p.274

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Is it a wargame? What is it used for?

I am going to use Peter Perla’s definition of “a wargame” and exclude field exercises –even though these and other kinds of event, no matter how useful, are frequently and erroneously called “wargames”.

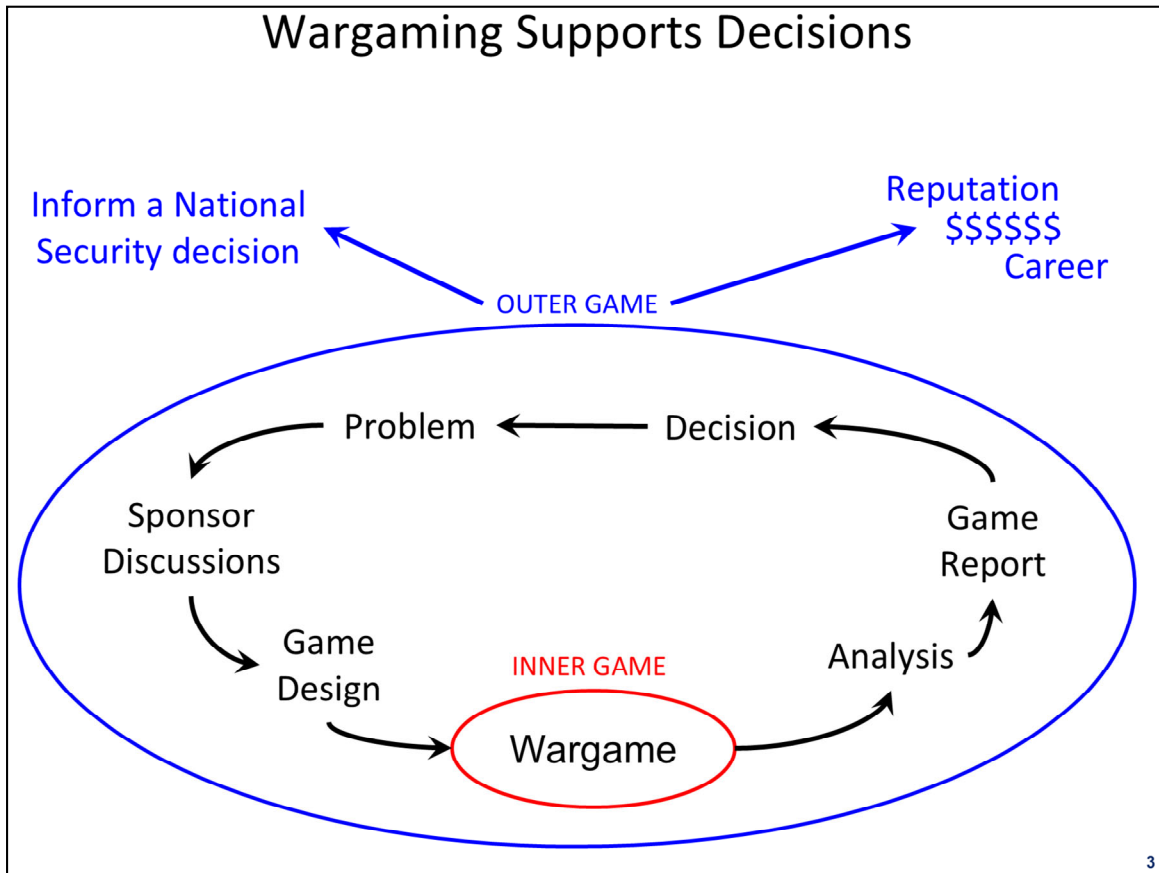
There are many reasons for wargaming, a few being war planning, researching the future, and exploring novel concepts. These all fall under the general term of discovery which is the focus of intelligence. We want to find out something we do not already know about the decision-making behavior of our adversaries. And while we are about it, let’s expand that to our allies, friends, neutrals – anyone with the ability and motivation to interfere with our plans and objectives.

Wargame participants exhibit psychological and cognitive biases and are subject to bureaucratic pressures which effect the wargame design, execution, play and analysis. These biases and pressures influence how the players, when in positions of command during a war, will think about warfighting and will influence how they fight.

Left Image: “Russia's President Vladimir Putin (right) and China's Defense Minister Wei Fenghe watch the parade of the participants of the Vostok-2018 (East-2018) military drills at Tsugol training ground not far from the Chinese and Mongolian border in Siberia, on September 13, 2018.” Alexey NIKOLSKY / SPUTNIK / AFP (AFP/Alexey Nikolsky), *The Jakarta Post*, September 13, 2018.

https://img.jakpost.net/c/2018/09/13/2018_09_13_53675_1536829024_large.jpg

Right Image: “NPS Student Wargaming Activities Address DoD Sponsors’ Direct Needs”, Matthew Schehl, July 12, 2018 <https://www.doncio.navy.mil/CHIPS/ArticleDetails.aspx?ID=10550>



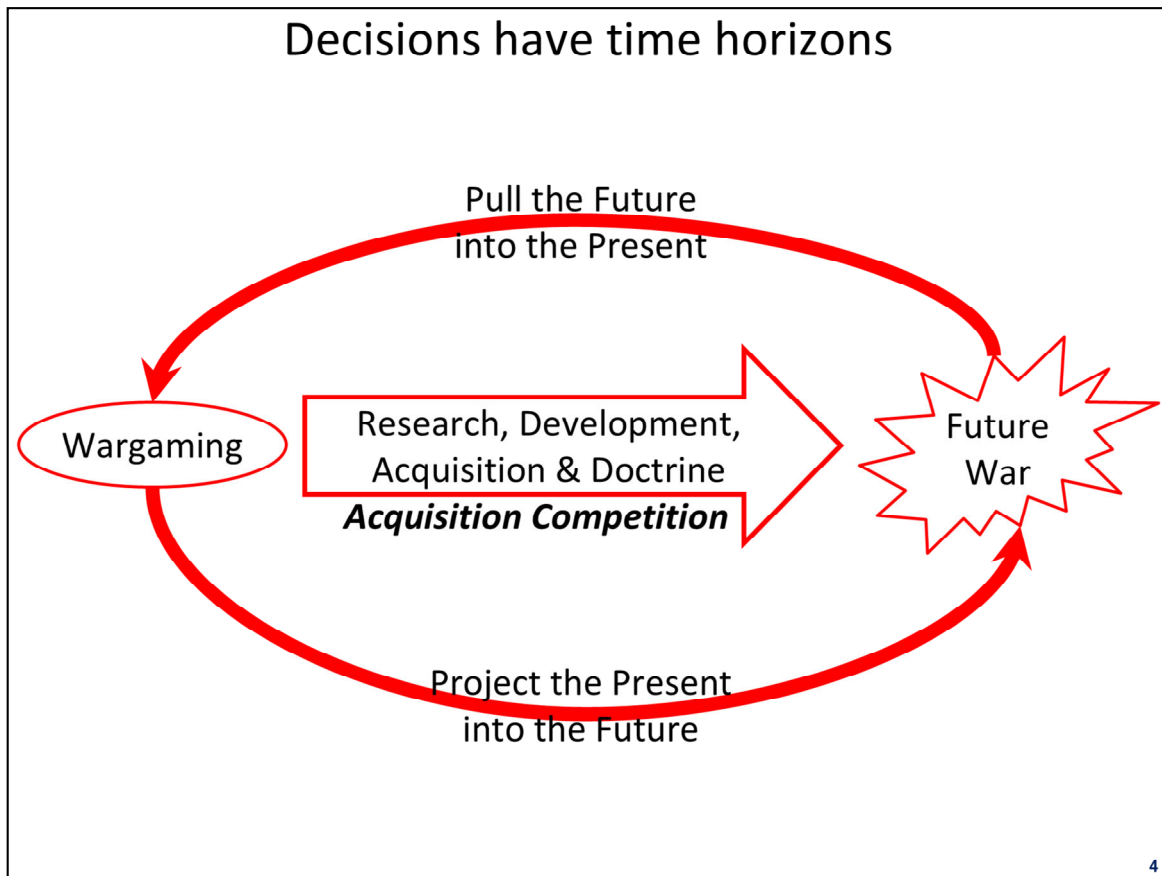
The inner and the outer wargame

The inner game is what one usually means when referring to “a wargame”.

The outer game is the one played by all influential stakeholders in the decision that the inner game is meant to inform. Their objective is to influence that decision by manipulating the design, play, analysis and reporting of the inner game.

The outer game players include the sponsor, the sponsor’s chain of command, the game designer and their chain of command, all senior officers invited to play in the inner game, and literally any other influential interested party. Many of them will try to insert themselves as players into the Inner Game where they will play to achieve their outer game objectives.

We should not just look at how the inner game is played. We must also collect on the how the outer game is played, and I speculate that how this is played is probably more important than how the inner game is played.



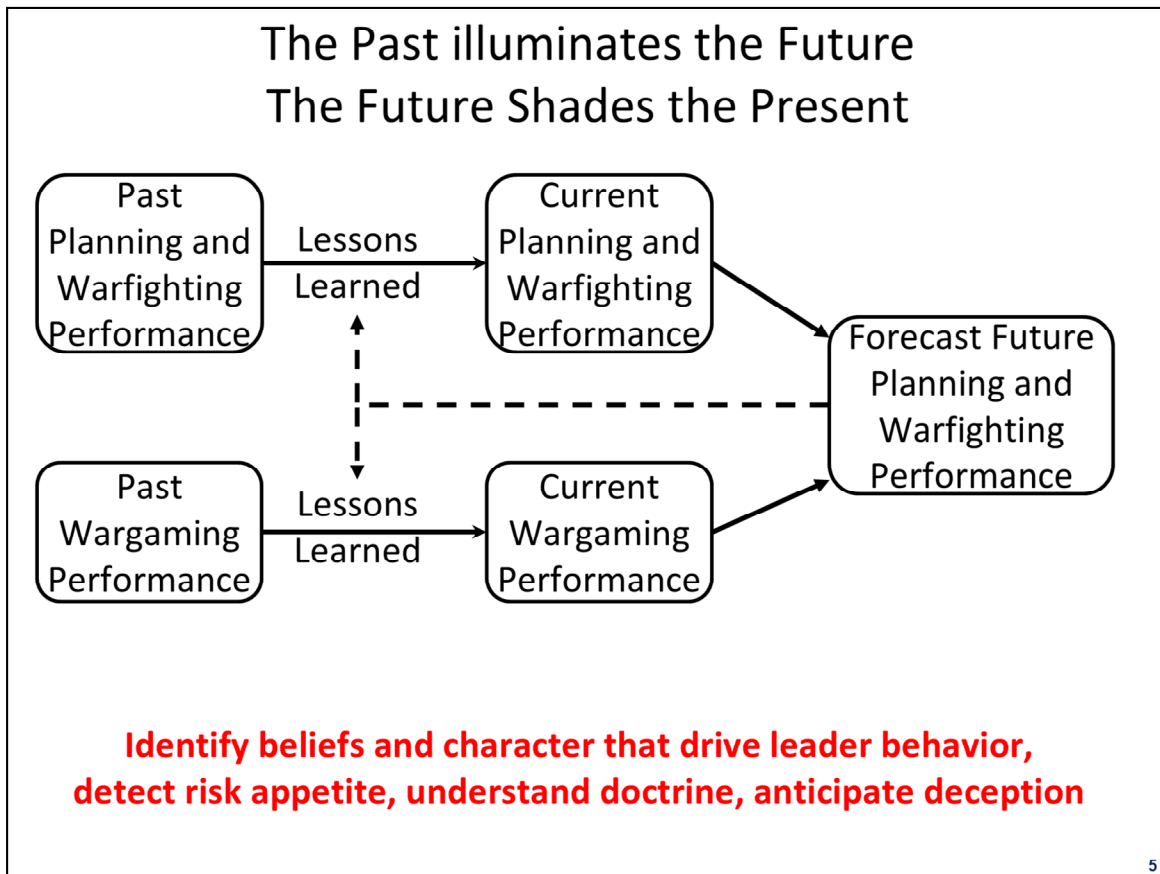
How an Opponent Wargames Matters

It allows us to forecast behavior, identify leadership character, detect risk appetite, understand doctrine, anticipate deception.

Our enemies will avoid attacking our strengths. They will, if possible, attack us at a time and place of their choosing, i.e. when and where we are vulnerable and unprepared, unless of course we pre-emptively attack them or they are forced or tricked into attacking us.

Preparing for future war requires the acquisition (and all that entails) of “stuff” between the present and that future, and that acquired stuff must be in the wargame about the future war. But acquisition itself is a real world competition between protagonists as they decide what they need based on their strategic goals and what they discover and about what their opponents are researching, developing, buying and planning to buy. This competition should be gamed to better plan one’s acquisition strategy and changes to that strategy. The acquisition wargame will inform when and how to fight that future war by giving insight into how force ratios change over time.

So how our opponents are wargaming the acquisition game and how they link that to the wargame about the future war is also an intelligence collection requirement.



Past Illuminates the Future

Studying the past and current performance of individual leaders and officers during real life war planning and war fighting tells us something about how those leaders might behave in future conflicts, exposes their characters and beliefs – but not the decisions they will make (more on that latter point later).

It is reasonable to suppose that examining leadership performance during wargames tells us something about how they might perform during the actual conflict that is being gamed. Obviously, the fact that a wargame is not reality must be used to process the results. It is not the decisions made in a wargame that matter, it is the beliefs, biases, habits of thought etc. that surface during the game and how they drove the reasons behind the decisions that were made and those that were not.

Example: German interwar wargaming -- 1927

The image shows a handwritten note on a document with a stamp 'RH 2 73'. The title is 'Kriegsspiel - Reichswehrstudien 1927'. The text is written in German and lists participants in a wargame and their subsequent ranks in WWII.

Participants in the wargame included

- One LtCol,
- Five Majors,
- One LCdr,
- Ten Captains

Who ended up in WWII as

- Six 4-star Generals,
- Ten Field Marshalls,
- One Grand Admiral

Wargames foreshadowed WWII leadership style and choices

Example: German Interwar wargaming 1927

German Wargames tested and refined new operational concepts.

The German Army was very interested in using wargames to develop their officers' characters. They viewed wargaming as a form of "spiritual development" and assessed their character during games.

Games were run the way they expected the officers to think and fight -- intelligently and independently.

Take a look at the handwritten note of participants in a game played at the Reichswehr Ministry in 1927*. Participants in the wargame included one LtCol, five Majors, one LCdr and ten Captains who ended up in WWII as six 4-star Generals, ten Field Marshalls and one Grand Admiral. I put it to you that having an understanding of how these leaders wargamed, not just in this game but throughout the interwar period, would have been useful.

* Found by Milan Vego in the Kriegsspiele und Kriegsspielstudien, Ausbildung, Heeresabteilung (T 1) bzw. Operationsabteilung des Generalstabes des Heeres (1. Abt. GenStdH, Oberkommando des Heeres/Generalstab des Heeres, Bundesarchiv-Militaerarchiv (BA-MA), Freiburg, i.Br.

Example: Operation Wacht Am Rhein 2 Nov 1944

2. US attacks here

1. Field Marshal Walther Model (Army Group B) and staff are wargaming possible US attack here

3. Field Marshal Walther Model and staff wargame the live operation and issue orders via 5th Panzer Army to 116th Panzer Division

Wargaming used real-time to test operations and guide command

Example: The German Army used wargaming in combat

According to Milan Vego in his excellent article “German Wargaming”, on 2 November 1944 during Operation WACHT AM RHEIN (aka “Battle of the Bulge”) Field Marshal Walther Model (Army Group B) and staff are wargaming a possible US attack down the seam between the Fifth and Seventh Armies. During the wargame the US attacks in the Huertgen–Gemuter Forest area and news of the attack is transmitted to Army Group B. Field Marshal Walther Model seamlessly transitioned a rehearsal wargame into commanding forces, In minutes General Siegfried von Waldenburg, who was engaged in the planning game, issued not simulated orders at the map table but real ones to the 116th Panzer Division via the 5th Panzer Army.

Map: https://westpoint.edu/sites/default/files/inline-images/academics/academic_departments/history/WWII%20Europe/WWIIEurope69.pdf

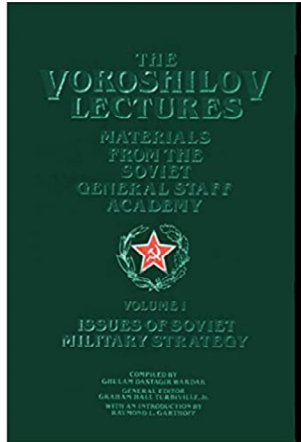
Photograph: By Bundesarchiv, Bild 146-1978-024-31 / CC-BY-SA 3.0, CC BY-SA 3.0 de, <https://commons.wikimedia.org/w/index.php?curid=5419069>

“German War Gaming” by Milan Vego, Naval War College Review Vol 65, No 4, 2012, <https://digital-commons.usnwc.edu/nwc-review/vol65/iss4/10/>

See also “War Games”, by Rudolf M. Hoffman, General der Infanterie a.D., Historical Division HQ United States Army Europe, 1952.

<https://paxsims.files.wordpress.com/2020/07/war-games-p-094-general-hofmann-1952-ocr-2020.pdf>

Example: Soviet & Russian wargaming



The Military Academy of the General Staff of the Armed Force of Russia.
Photo: Vladimir V. Burov, Creative Commons Attribution-Share Alike 2.0 Generic license, Wikimedia.

Centralized, institutionalized wargaming tradition

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Example: Soviet and Russian wargaming

Norm-based planning and actions dominate wargames and operations ... [a]

“... officer participants have been promoted or demoted on the basis of their performance in wargames” [b]

“... If the commander does take the initiative, then he had better find a theory to back up his actions” [b]

“... slow detailed adjudication optimal for decision support poorly suited to developing thinking skills” [c]

And that is how they did fight in WWII ... mass formations with initiative reserved for senior leadership.

BUT ... What about now? What’s happening to Russian wargamers? How do the Russians wargame and think? And who is doing the thinking?

I suspect the outer wargaming of the special military operation in Ukraine would be interesting!

[a] “Sustainability of the Soviet Army in Battle”, SSRC 1986

[b] “Soviet Style Wargames”, John Sloan, Ali Jalali, Gouhram Wardak, Fred Giessler, June 1986 (SAIC)

[c] “On Wargaming”, Matt Caffrey, April 2019 (Naval War College Press)

[d] “How Russia ‘Plays’ at War”, Steven J Main, The British Army Review 171: Winter 2018

[e] “Russia Planning Post-Invasion Arrest and Assassination Campaign in Ukraine, U.S. Officials Say”, Amy Mackinnon, Robbie Gramer and Jack Detsch, Foreign Policy, Feb 18, 2022, <https://foreignpolicy.com/2022/02/18/russia-ukraine-arrest-assassination-invasion>

Example: Japan's Total War Research Institute & Midway



Courtesy of Mainichi Shimbun

Strategic blind spots revealed

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Example: Japan's Total War Research Institute & Midway

From the War Gaming Exhibition at the Canadian War Museum, Ottawa ON Canada

“As Japan prepared for war in the Pacific, Japanese officers established the Sōryokusen Kenkyujo (Total War Research Institute) to study future war scenarios.

During one 40-day simulation in the summer of 1941, students concluded that Japan could not win a long war against the Allies. Their final report, issued just before Japan launched its offensive at Hong Kong, Pearl Harbor, and elsewhere, was ignored by senior military officers.”

[a] [b]

“The tentative conclusion ... was that Japan could lose a war against the US in a few years because of lack of economic power. The game directors and players gathered in the official residence of the real-life prime minister and presented the report to the real-life prime minister and his real-life cabinet members including the ministers of the Army and Navy in August 27 and 28, 1941. The minister of the Army, who would be appointed prime minister two months later by the Emperor, immediately prohibited them from making the contents of the report public.” [c]

Understanding how senior military and civilian leadership respond to wargame results is a valuable addition to intelligence about those results.

[a] Exhibition the War Gaming Exhibition, Canadian War Museum, Ottawa ON Canada

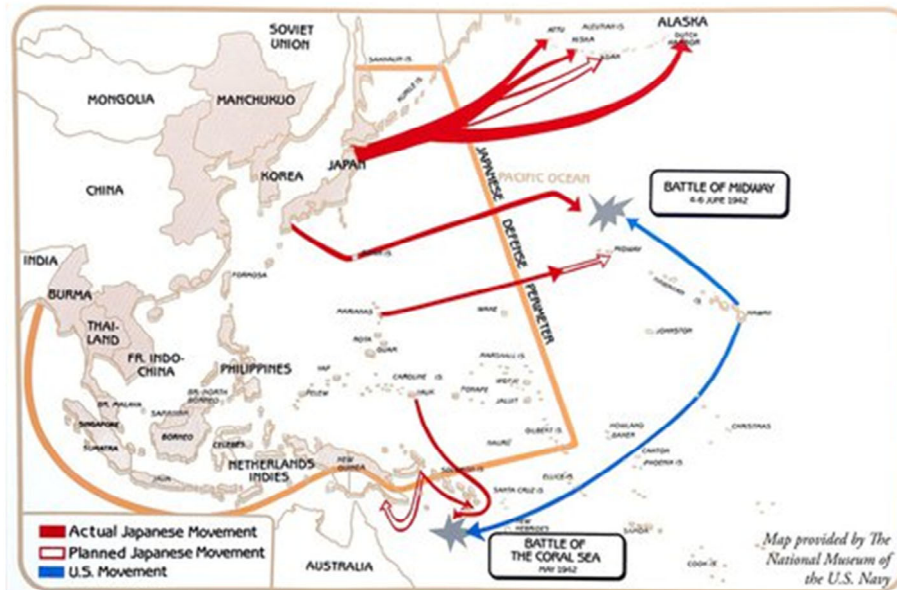
[b] June McCabe, “Seminar-style Simulation Games Conducted by the Total War Research Institute in the Summer of 1941” and references contained therein.

[c] Arata Ichikawa, “Early Japanese Gaming Simulation Efforts”, *Developments in Business Simulation and Experiential Learning*, Volume 35, 2008, <https://absel-ojs-ttu.tdl.org/absel/article/view/416>

See also

➤ Hiroyasu Akutsu, “The Layers of Ethics Surrounding Wargames”, *Unethical Wargaming Study Group Connections US 2021 Wargaming Conference*, https://drive.google.com/file/d/1dV22r8uLJ1S_BN3gm5iuqy-rw5pInqtY/view, provides a nuanced view of the Total War Research games

Example: Japanese wargaming pre-Midway



Strategic blind spots led to tactical blindspots

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Consider the Japanese pre-Midway war games

During these games the contingency of a US carrier task force appearing on the flank of Admiral Chuichi Nagumo's force was discounted. [a, b]

The wargame decision to posit a flanking force could not be used by the Imperial Japanese Navy (IJN) staff to predict that the United States would indeed carry out such an action. It was the contingency itself that was important, but it was the beliefs and cognitive biases of IJN leadership that dictated that this contingency was not to be considered interesting, [b]

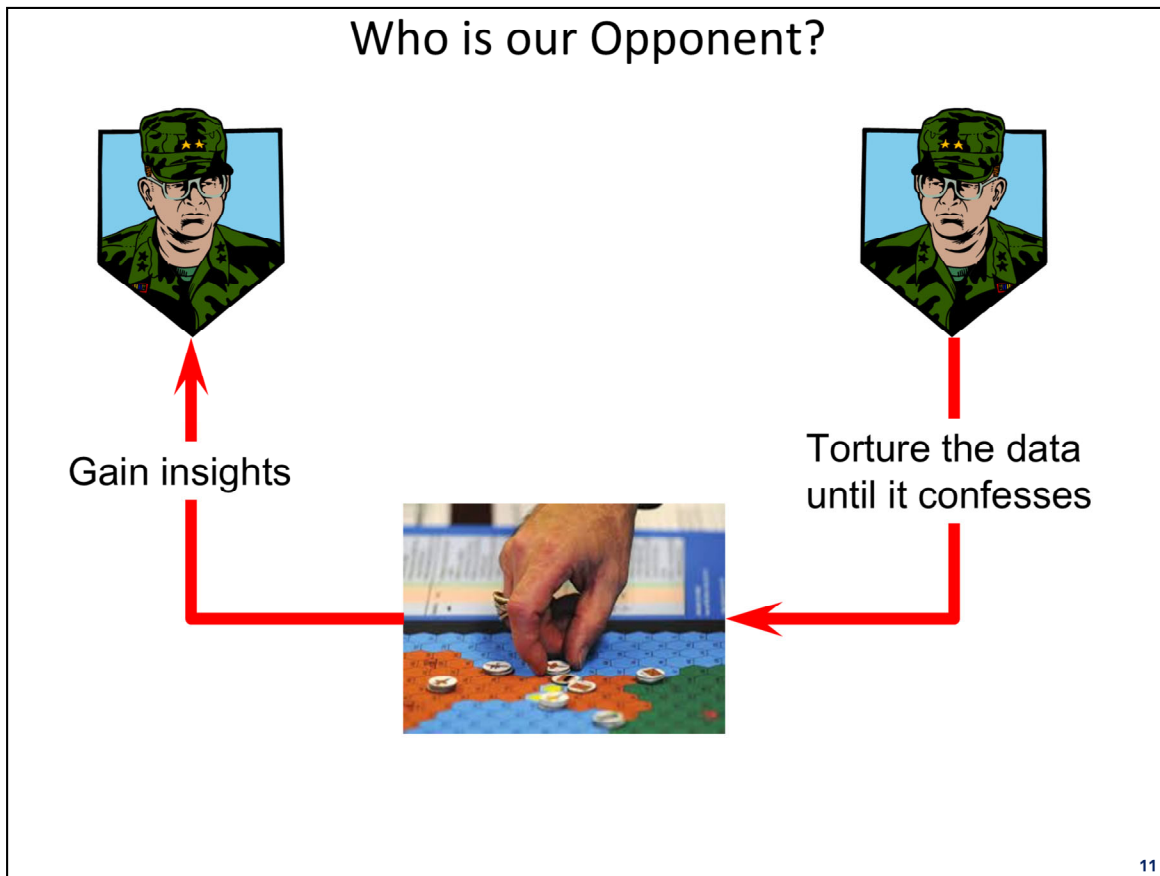
The fact that the US carrier task force did indeed turn up on the flank was independent of the IJN war-game decision. The beliefs and biases that led to the contingency's being ignored should have been identified and challenged by the war-game designers and analysts, but they were not, due to the seniority of the officers holding those beliefs and suffering those biases.

Research indicates that beliefs are robust even in the face of contradictory evidence that the belief holders themselves admit is both credible and contradicts their beliefs. Being aware of how culture creates different failure modes among senior officers and how those failure modes effect planning as seen in wargames is an important piece of intelligence – in general even if not in specific situations. [c]

[a] Mitsuo Fuchida and Masatake Okumiya, "Midway: The Battle That Doomed Japan", Naval Institute Press, 1955, p. 97

[b] Jonathan Parshall and Anthony Tully, "Shattered Sword: The Untold Story of the Battle of Midway" Potomac Books, 2007, p. 410

[c] Stephen Downes-Martin, "Adjudication: The Diabolus in Machina of Wargaming", Naval War College Review 2013, Vol 66, No. 3, pp 67 – 80, <https://digital-commons.usnwc.edu/nwc-review/vol66/iss3/6/>



Some proposed intelligence questions

Does the enemy chain of command examine wargames for insights or try to beat them into submission? Remember “if you torture the data long enough, it will confess to anything”* applies also to wargames.

This breaks into three general questions

1. How seriously does the enemy chain of command take wargaming?

- How far up the chain of command do wargame results go?
- How does performance during wargames affect promotability?
- How did current senior leaders perform in past wargames?
- How does wargaming fit into their doctrine?

2. How does the enemy chain of command interfere with wargaming?

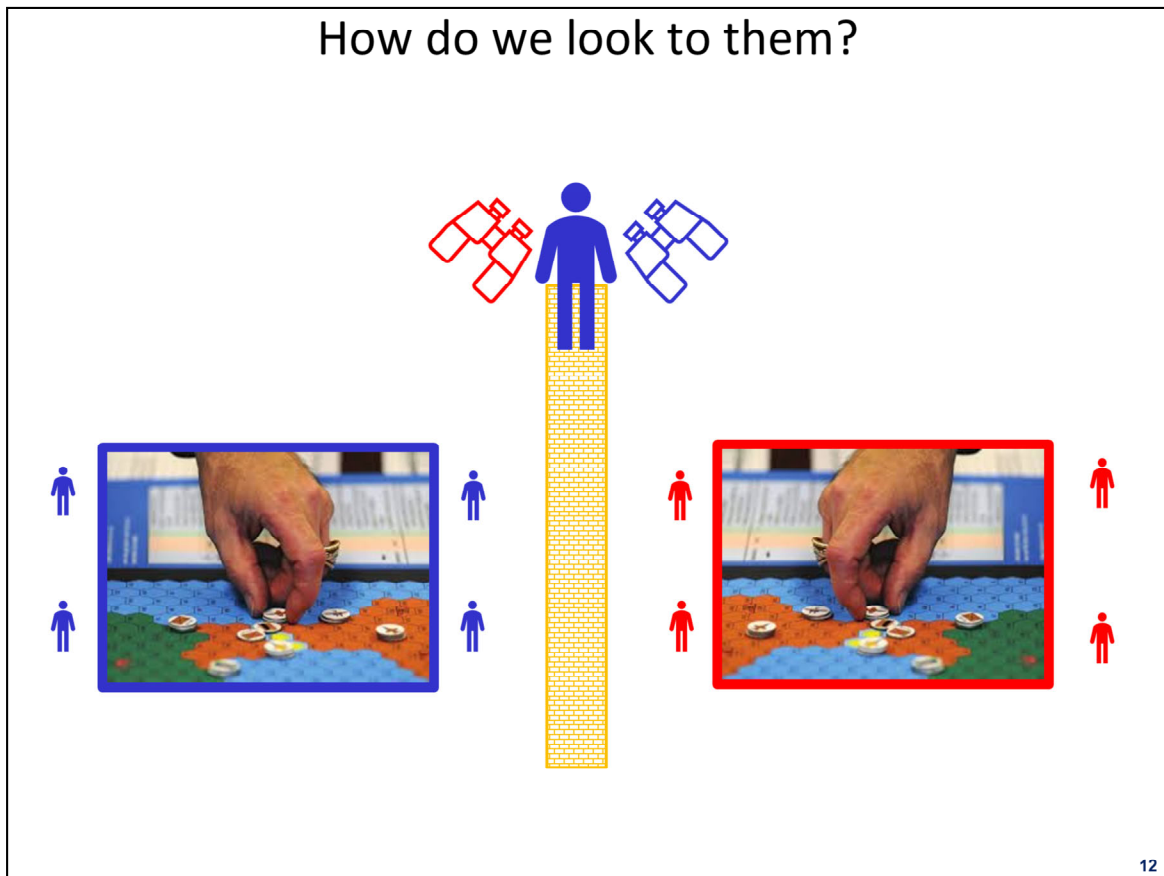
- What is the influence of senior leadership on wargame style?
- How does senior leadership play the outer game
- Are wargames funded by the sponsors (conflicts of interest) or mission funded?

3. How fit for purpose is their wargaming?

- How effective is their use of wargame insights?
- How do they integrate wargaming with other analytic approaches?
- How seriously do they take wargaming doctrine in PME and planning?

* Quote attributed to British Economist Ronald H. Coase.

How do we look to them?



Now look at how we wargame through their eyes

If we believe that something is an intelligence collection requirement, then it would be wise to assume our enemies think the same about us. So, they are asking the same questions about us that we ask about them. If we believe how well the enemy addresses the questions we ask about them is important, then how well we address those questions about ourselves is also important. So, we should look at ourselves through our enemies' eyes:

- Do we believe they would conclude our wargaming is fit for purpose?
- If not, are they mistaken or are we delinquent?
- If we are delinquent, are we really willing to change?
- If not, where and who are the barriers?
- How can we exploit their likely beliefs about our wargaming to deceive them?

We come full circle, to Deception



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We use exercises to train, but we also use them to signal and to support deception plans.

How can we use Wargames to Deceive in the same way?
What would counter deception look like?

As is true for any intelligence activity, deception is present


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As is true for any intelligence collection plan, deception is present.

- The wargame would imply a plan other than what we intend.
- The game and players must be treated the same way that senior leadership routinely treats wargames and wargamers.
- Counter deception would look for “this wargame” being treated uncharacteristically seriously by senior leaders.

Proposed framework for Collection

		What is the purpose of the wargames?			
Collection target		Plan war	Research future	Explore concepts	What else?
Wargamers' environment	Culture, Education, etc.	<p>How is the wargame designed and executed?</p> <p>How are the results and participants treated?</p> <ul style="list-style-type: none"> ➤ What should we expect to see in here? ➤ What do we see in here? ➤ What does that tell us? ➤ What is missing? 			
	Institutional Environment				
	Command Climate				
	Support for Wargaming				
	What else?				



For given circumstances, how might they lead and fight?
What aspects of their characters can we exploit?

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Proposed framework for collection

I propose a two-dimensional analytic framework of "Purpose of the wargame" and "Environment in which the wargamers are embedded", tailored to specific intelligence collection targets, with some suggested headings.

Competitive environment, Strategic objectives, Resources and constraints are part of the traditional targets of intelligence collection. We need to expand this to the many facets of cultural characteristics drawing on research not usually associated with wargaming.

Each cell in the matrix generates intelligence questions for each military being examined and expected answers based on theoretical analysis. Differences between what we might expect and what we discover from real evidence will tell us how well we understand the motives and background of the wargamers ... and hence inform us about how they might plan, think and perform at war.

Action Items

1. Collect on “How our enemies wargame”

- Analyze for biases, beliefs, attitudes to risk, and character of their leadership
- Look for exploitable weaknesses in their character and style
- Track their improvements in planning and leadership

2. Look at “How we wargame” through enemy eyes

- Identify what we are revealing about the character of our leadership
- Identify exploitable weaknesses in our character and style
- Red Team improvements in our planning and leadership

3. Apply the intelligence cycle to enemy wargaming focused on “how”

- Apply the intelligence cycle to enemy wargaming focused on “how”
- Develop a doctrine for exploiting adversary weaknesses identified by how they wargame
- Fix any weaknesses identified in our wargaming enterprise
- Develop a doctrine for using wargames as signaling to deceive and deter

**How others wargame is important intelligence.
So is what others learn by looking at how we wargame.**

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Action Items

How others wargame is an important intelligence collection requirement. So is what others learn by looking at how we wargame.