Introduction

The answer to “How does an opponent wargame?” supports decision makers when deterring, preempting or reacting to conflict. How opponent decision makers wargame during peacetime, i.e. the methods, techniques and styles of gaming used and the beliefs and psychological biases of the players, gives us insight into how opponent decision makers might operate during conflict. This is in addition to the scenarios, systems and concepts they game which one can credibly infer from the political, economic and military environments. Since studying the performance of individual decision makers during real life planning and conflict tells us something about how those decision makers might behave in future conflicts, then how they behave during wargames might tell us something about how they would perform during the future conflict that they are currently wargaming. Therefore studying the wargaming approaches of an opponent or ally and the wargame performance of selected military and political leaders should be an intelligence collection requirement. In this presentation I propose an analytic framework for answering the wargame intelligence question based on the Purpose of the Wargame and the Characteristics of the Wargamers for each identified opponent group, and propose methods for avoiding such collection on oneself.
What is wargaming, and what is it used for?

There are many reasons for wargaming, a few being research/analysis, training, education, or discovery. I am going to focus on discovery since this 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 allies, neutrals, ... in fact of everyone with an ability and capability of interfering with our plans and objectives). Wargame players – even military officers – suffer human psychological and cognitive biases and are subject to bureaucratic pressures which effect wargame design, execution and analysis. These characteristics influence how the players, when in positions of command during a war, will think about warfighting and will influence how they fight.

(For the purposes of this discussion I am going to assume Peter Perla’s definition shown on the slide and exclude field exercises -- although these are frequently and erroneously called “war games”.)

The core of wargaming is human decision making in the face of opponent decision makers, which is of direct interest to the Intelligence Community.

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

Wargame Spectrum

There are many different types of wargames, and this diagram gives one view of how to organize them. In this case on the level of analytical precision. Different types of wargame are suitable for different levels of analytic rigor versus original thought, and this will imply different game designs, most importantly in how the game is adjudicated. By “rigor and analytical precision” we mean that the game deals with a well understood situation for which one has a combination of valid statistical data of past similar situations combined with objective performance numbers for platforms and units. One can therefore apply objective deductive adjudication techniques. However for situations which are novel, especially those set in the future and at the high operational or strategic level, one does not have these objective adjudication rules. For example, what are the rules for adjudicating a game about US information operations against China during a theater nuclear war between Pakistan and India? How many of these have we fought? None. So we have to use inductive gaming techniques.

Cycle of Research

The cycle of research links exercises and wargames to produce data for analysis, and data is then fed back into refined wargames and exercises. We obviously direct collection and analysis at our adversaries’ and allies’ exercises to gain actionable intelligence about capabilities and intent. And equally obvious we and they use exercises for deception purposes.

In the same way that adversary exercises and their analysis of their exercises are an intelligence target, the same should be true of adversary wargames and their own analysis of their wargames. How our adversaries integrate wargames with exercises will tell us even more about how they might think and fight on the battlefield.

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.

Therefore 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 that surface during the game and how those beliefs drove the reasons behind the decisions that were made and those that were not.
Example 1: 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.

See the handwritten note of participants in a game played at the Reichswehr Ministry in 1927 (found by Milan Vego) in the Kriegspiele und Kriegsspielstudien, Ausbildung, Heeresabteilung (T 1) bzw. Operationsabteilung des Generalstabes des Heeres (1. Abt. GenStdH, Oberkommando des Heeres/Generalstab des Heeres, Bundesarchiv-Militäerarchiv (BA-MA), Freiburg, i.Br.

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

Who led and how they fought was presaged by wargames of the inter-war period.
The German Army used wargaming in Combat

From “German War Gaming” by Milan Vego (Naval War College Review Vol 65, No 4, 2012) we have: “For example on 2 November 1944 during ... Operation Wacht am Rhein Field Marshal Walther Model ...” seamlessly transitioned a rehearsal wargame into commanding forces when “... the Americans attacked in the Huertgen–Gemuter Forest area.” 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 his operations officer and couriers.” (paraphrase of the original).

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


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

From the literature:

➢ “... slow detailed adjudication optimal for decision support poorly suited to developing thinking skills”
➢ “... If the commander does take the initiative then he had better find a theory to back up his actions.”
➢ “... officer participants have been promoted or demoted on the basis of their performance in wargames.”

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

BUT ... What about now? Little Green Men and Hybrid Warfare? Thee Baltics? Western Ukraine?

How do the Russians wargame and think?

See the following documents:
*On Wargaming*, Matt Caffrey, April 2019 (Naval War College Press)
*How Russia ‘Plays’ at War*, Steven J Main, The British Army Review 171: Winter 2018

Lessons Learned from Wargames

Wargame participants learn the obvious:
➢ Doctrine
➢ Coordination
➢ Tactical employment
➢ Effects of uncertainty
➢ etc

But they also learn and develop intangibles:
➢ Character
➢ Willingness to make decisions
➢ Ability to assess, and willingness to take, risk
➢ Style of warfighting
➢ etc

And the latter is vital for us to know about our enemy’s leadership
It’s all in the Mind!

Wargaming is driven by the decisions made by the competing players, and the decisions in turn are driven by individual and group psychology, by cognitive biases, and by beliefs. Indeed, we know that there is a poor correlation between what most (even reflective) people say they would do in a future situation and what they actually decide. This is important since a wargame is about decisions made in the present about a situation the decision maker is embedded in, but the desire is to draw conclusions from these decisions about a future situation or battle that is being planned for or explored. The conclusion is that one cannot use wargame decisions as proxies for the decisions that even the same people would make if and when the future situation arises. It does not matter how similar the future real situation is to the current wargane situation, there is an ever present critical difference -- the decision makers know the real situation is real, and that real people will die. It is at this point that the Risky Shift and the Dishonesty Shift that occurs in groups influences group decision making. So it’s the beliefs and psychological biases of the players – indicated by wargaming – that they bring to the warfight that is important to understand. I.e. their cognitive approach to the actual fight.
Some Intelligence Questions during Peacetime

In addition to “what?” (plans, location, equipment assumed, etc) is being wargamed by others, there are two additional types of valuable intelligence that can be gained by collecting on our adversaries’ wargames. First, we are interested in wargaming techniques that we might be able to use to improve our wargaming. More importantly however is “how?” they are wargaming both from an individual perspective (cautiously? recklessly? riskily? dishonestly? innovatively? bureaucratically? etc) and a doctrinal perspective (new doctrine being explored? novel techniques? little green men? hybrid warfare? integration of D, I & E with M?)

As we have seen with German and Russian interwar wargaming, the style of fighting and the character of the leadership and C2 was strongly indicated by how the wargames were organized and run, and the same leaders took the lessons they learned from the wargames into the war.

Wargames occur more frequently than exercises due to the absence of troops and equipment, and during peacetime often involve senior officers exploring and developing novel concepts to use in future conflicts. Because wargames are easier to hide from view than exercises, they are harder to collect on but are just as important.
Proposed Analytic Framework

I propose a two-dimensional analytic framework of "Purpose of Wargaming" and "Characteristics of the Wargamers" for each identified group that "does wargaming".

- Purpose of Wargaming: War planning, Concept exploration, Futures research, Experiential education.
- Characteristics of the Wargamers: Cultural background, Competitive environment, Strategic objectives, resources and constraints.

For both of these it is obvious that others can be identified, and many of these overlap.

Each cell in the matrix (4 x 4 here, but this is just a suggested list for each dimension) 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 what we know about how they might plan, think and perform at war.

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.

Some of these claim to apply to entire cultures, others are applied to specific individuals. Use the claims that these deal with whole cultures with suspicion. Mine the approaches for inspiration and apply them as well to individuals.
Example: “Education” in Russian vs English

English (Education):
➢ From the Latin “ex-ducere”
➢ To “bring out”, “lead forth”, “expand” the mind

Compare to Russian: образование
➢ To “form” or “mold” the mind

Very different meanings of the word between different cultures.

What are the implications for how officers and political leaders think, plan and act in peacetime, wargames, and war, and the connections between these?
Some Proposed First Steps

How seriously does the enemy chain of command take wargaming?
➢ How far up the chain of command do wargame results go?
➢ How did senior leaders perform in past wargames?
➢ How does performance during wargames affect promotability?
➢ What is the influence of military leadership on wargame style?
➢ Are wargames funded by the sponsors or mission funded?

What do they do with wargaming?
➢ How are wargames integrated into the cycle of research?
➢ How are wargames linked to training, exercises, plans?

How much attention do they pay to how we wargame?
➢ What do they write about us?
➢ Where do they focus their attention?

How do we avoid having this done to us?

Our enemies might be asking the same questions about us. So ask those questions about ourselves.

Two layers of defense:

Secure: Treat the information implied by first step questions as classified if possible, including the performance records of officers who participate in wargames, to the same level that the wargame is classified.

Deceive: M-Type: Create and leak “classified fake performance records” of games and participants.

A-type: Create and leak “classified fake research” into how wargames affect warfighting style.

How do we do this without falling into the trap of mirror-imaging?