

# Evaluating Wargaming v the Ukraine Experience 2014-15

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History of Wargaming Project

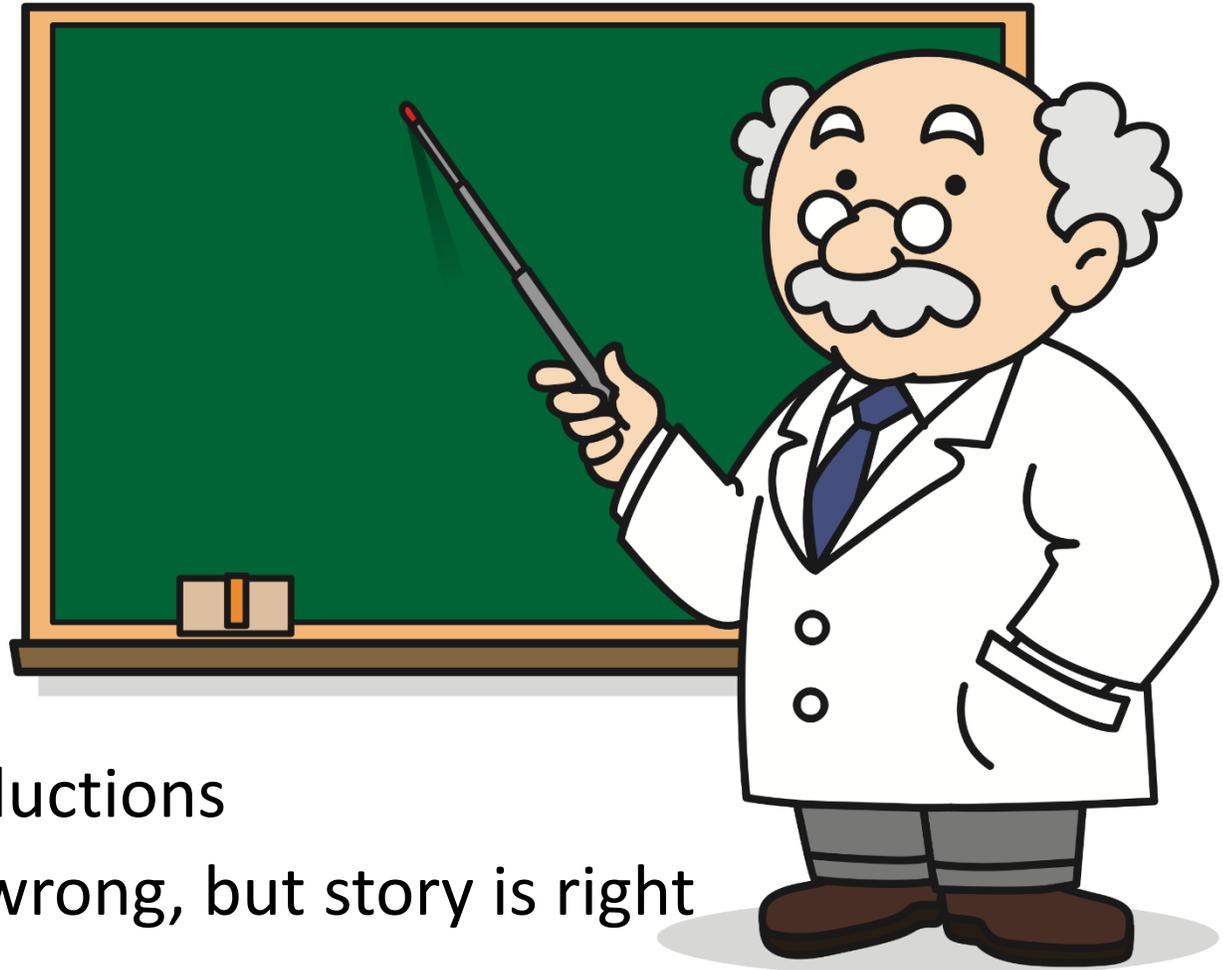
[www.wargaming.co](http://www.wargaming.co)

# Background

- One dark night my university approached with academic equivalent of 'packet of used fivers'
- "Want some work done on the Ukraine"
- Access to people
  
- Cultural note: UK we give chocolates, UKR gave 5 bottles vodka

# Academic perspective

- Role is to challenge
- look for evidence



- Make evidence based deductions
- Might have some details wrong, but story is right

# Our Wargames are accurate and complete representations of war

- Actually two issues

**Wargames as models of past wars**

**Wargames as models of future wars**

**"Prophecy is a difficult art, especially with respect to the future".  
Arthur C Clarke**

# Wargames obviously work

*Maxim 1: Wargames are played by losers and winners in equal measure*

- Prussian Wargaming helped teach the general staff officers how to think about operations using a common framework, one which certainly played an important role in the great victories of 1864, 1866, and 1870-71 and 1939 and 1940,
  - as well as the even greater defeats of 1914, 1918 and 1945
  - Might have done worse without the wargaming!
- not proved.. actually not researched... But current French PhD research on role wargames in Franco Prussian War.
- But let us start in the early days of wargaming...

# British War Office *Wargame Rules 1896*

- Cavalry- “A frontal attack on guns will entail heavy loss, but should not be considered impracticable”.
- Cavalry attack v unshaken infantry “Cavalry attacks will always be productive, when successful, of heavy loss to the infantry.”
- Q What impact did game have initially have on tactics in Boer War?

# US Naval war College interwar war games

In a speech to the Naval War College in 1950, Admiral Nimitz, Commander-in-Chief of the US Pacific Fleet for WWII, said:

‘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’

# 1936 USN rules/ tactical problems v reality

USN Wargames	Actual Pacific War 1941-45
Anticipated decisive major fleet action between capital ships aka Jutland	Battles dominated by air power and involved numerous smaller actions
Most gunnery actions by day	Most gunnery actions by night
Centralised command and control of fleets suited to gunnery action	Decentralised control was required when faced by sudden catastrophic torpedo hits that changed the battle in moments
Aircraft had a minor role	Aircraft had major role
	Battle of the Atlantic (RN and RCN did it)
Of course, they may have played the games differently from the rules! They were clearly learning from the games e.g. navy/ army cooperation in amphibious assaults.	

- Nimitz and his quotation made people think those games were crystal balls when they were not.
- USN games included eggs of most that ultimately happened, but not in the same order or with the same import as reality.
- Games revealed possibilities, that would not have otherwise been foreseen and they developed options to deal with these.
- **Maxim 2: Do not believe senior officers pronouncements on the effectiveness of wargaming**

**Maxim 3:** Sometimes hobby game, but you do not know it at the time  
e.g. Fletcher Pratt Naval Wargame 1933-45

- Players such as Isaac Asimov, Sprague de Camp, Trevor Dupuy, ... Fletcher Pratt himself and others, it enjoyed success with weekly games in a New York ball room.
- Insights from Pratt games
  - Predicted outcome of Battle of River Plate
  - Only way to defeat airpower is with airpower
  - Decentralised command was needed
  - Importance keeping in formation to avoid blue on blue
  - Danger of catastrophic torpedoes hits
  - ...



“But surely modern professional  
Cold Wargames are better?”

# Cold War Classified Tactical Wargames

*modelling future wars*

Rules	Date	Nationality
British Army Desert Wargame	1978	UK- written 1968 for war in 1978
Firefight	1976	Dunnigan, SPI, under contract USA Army. Published by SPI due to 'contract error' Classified and unclassified versions
Dunn Kempf	1977	USA
Contact!	1980	Canadian
Block Buster	1984	USA FIBUA

*Curious about references to WRG Modern Wargaming Rules that turn up in professional publications*

# Dave Rowlands (2006) *Stress of Battle*

Shooting performance in live operations about an order of magnitude worse than realistic training exercises, another order of magnitude worse than range firing

# Russian T62 115mm gun v UK Chieftain

Range 750m- stationary target- in open- P(hit) and P(kill) combined

Rules	Raw %	Turn length
1978 UK MOD Rules	96%	Single shot
1976 Firefight (v tank)	69% (incl 3% of mobility kill)	40 seconds
1980 Contact	50%	30 seconds?
1977 Dunn Kempf	6%	30 seconds

# US TOW v T62

Range 750m- chance of kill

- 1978 UK MOD Rules -
- 1976 Firefight 83% (incl 3% of mobility kill)
- 1980 Contact 50%
- 1977 Dunn Kempf 26%

# Advantage of tanks being hull-down

(American translation hull down = defilade)

- UK MOD Rules 30%
- Firefight 42% for MBT/ 52% APC (average)
- Dunn Kempf 10%
- Contact 10%
- Block Buster 30% MBT/ 50% APC

# Operational Cold Central Front Wargames

## *All wrong?*

- Played Megablitz – *a wargame about trucks. I found WP did not have enough trucks to support their divisions.*
- 1980 Russian tank division needed 1073 tons per day for offensive operations and they were supplied by 1,500 vehicles per division.
- Prior to the Arab Israel War of 1973, they had 250 per division.
- Therefore up to mid 1970's, Russian attack would have run out supplies in 3 days? Relied on rail, civilian trucks and under-estimates.
- Would BAOR/ US 5<sup>th</sup> Corps counterattack out of supply Russian divisions?
- Cold War games- none highlighted supply issue prior to c1976

The evidence shows professional wargames of the Cold War had major errors in them.

# Story so far

- Cold War professional wargames had errors in them
- Now look at wargaming and UKR experience 2014-15
- Yes they played wargames- free kreigsspiels



# Unexpected features of war (1)

- **Lesson #1: UAVs Critical- air recce**
- **Lesson #2: Indirect Fire**
  - **90% actions IDF, 2 UKR Bn lost in 3 mins**
  - **IDF waiting area, mv to fire posn, move again in 3 mins**
- **Lesson #3: Man portable air defence**
  - **Deadly- 1 team shot down 3 helo in one day**

# Features of war (2)

- **Lesson #4: Tanks Rules**

- **Race between tanks armour and infantry, tanks winning**
- **T90 active defence (radar activated pellets) defeated AT 5/ RPG 7 and RPG 26**
- **Note- US made TOW with dual warhead will defeat this (I read the sales brochure...)**
- **IFV more vulnerable hence dismount for assault (Ru T15 developed)**

Wargames as models of war  
v  
subsequent experience of the Ukr war

- 1) Matrix Game methodology
- 2) Board games
- 3) Computer games

# 1) Matrix Games

- Impose narrative where is none
  - Shooting down of Malaysian airline flight MH17 17 July 2014 was random
- A lot of Donbas Conflict decided in relatively low level skirmishes, so not a 'narrative' war.
- Black swans
  - Unexpected dominance of artillery
  - Superiority of tanks
  - Critical role of drones (latter are just type of air recce)
  - Portable crematoria to dispose of bodies



- Can create matrix game of the 2014-15 conflict from the perspective of hindsight

## 2) Board games: Millennium Wars: Ukraine (2003)

- Designed by Joe Miranda
- Published by One Small Step games
- 10 years before crisis
- Many interesting features, but
- ORBAT scale wrong
  - Russia 9 divisions!
  - NATO armoured divisions!!
- Focus on Kinetic-
  - assumed WWIII in eastern Europe



# Brian Train Ukraine Crisis

- Operational level game
- Published March 16 2014 (hours after Crimean referendum).
- Subsequent changes
  - Airfields added to Kiev and Odessa to allow the Ukrainian parachute brigade to move.
  - Explicit Sevastopol enclave added
  - Expansion non-kinetic Options
  - Game was according to game designer “half right and half wrong”
- Subsequent games- e.g. Russo-Ukrainian Conflict 2014 *Modern War* #34 2018 Decision Games

## C) Computer Games- generic weaknesses

- 'Modern computer tactical trainer' (anon for legal reasons)- models using individual avatars.
- Error #1: Time pln attack= same for coy = same for battle group!
- Error #2: Terrain too simple e.g. Woods- Eskimos have 50 words for snow, army should have 50 words for woods. Mature, gaps can drive through, small trees can be crushed by armour, plantation with East West forest rides, etc.
- Error #3: casualty rates same for Pln/ Coy/ BG actions.

# Maxim: Wargames can model past conflicts really, really well.

- Decide what aspects to focus on, level of abstraction and generalisation and modern hobby wargaming has tools to simulate any past conflict
- Endless examples by Sabin, Perla, Decision Games, Wargame Developments, Society of Ancients
- Dunnigan's 'let game design itself'- i.e. design prototype game, keep playtesting and changing it so it models what happened in history, then model what could have happened

Wargames made prior to war  
did not model Ukr conflict 2014/15 well

# So if all wargames about future conflict wrong, “What is the use of Wargaming? ”

There is academic evidence for the following:

1. Act of building wargame good as analytical method e.g. Tacspiel, WATU
  2. It is considered an approach “for exploring complex problems, and is a form of applied research”
  3. Wargames way of visualising complex problems
  4. Training decision makers in sandbox, where they can test ideas
  5. Way to share experiences
  6. Team building ready for crisis
  7. Way of teaching history (some egs, but limited evidence about value)
  8. Can highlight decision points
  9. Might find a *black swan*
  10. Red team perspective- the enemy has a vote
- **When faced by the unexpected in crises, having played wargames can be a part of developing the necessary mental agility to cope**
  - **The Problem is if you think your wargames about future wars are actually right**

# Conclusions

- Past games have hit *some things right* and others *wrong*.
- But most importantly, they helped their participants and organizations think through problems from new points of view.
- As exercises in dynamic human interaction they have often proved better predictors of future human behaviour than other techniques.
- Are they perfect? NO.
- Should you bet your life, or your retirement income, or the existence of your nation on wargames alone? NO.
- Should you use them and pay attention to them as you contemplate that future and how things might evolve? YES.