

Russian Security State

GOVT-5519/IPOL-3519/REES-5519/SEST-6763

Lecture 14. Military Analysis 101

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Today's objectives

1. *Introduce*: basic terms of reference for military analysis
2. *Discuss*: merits of different measures of effectiveness
3. *Consider*: how requirements for a “short, lightning war” differ from those of a “long war of attrition”

The Ends

Levels of Analysis

Three levels of war

(Soviet/Russian counterparts in grey)

1. Strategic (operational-strategic)
 - a) how to win war
 - b) *objectives*: destroy enemy armed forces, will to fight
 - c) *units* (ob'edineniya): theaters, army groups, fronts
2. Operational (operational-tactical)
 - a) how to win campaign
 - b) *objectives*: reach/gain territory
 - c) *units* (ob'edineniya/soedineniya): armies, corps
3. Tactical (tactical)
 - a) how to win battle
 - b) *objectives*: take hill, trench
 - c) *units* (soedineniya/podrazdeleniya): division, brigade, battalion



Figure 1: Wrong approach

Comparative military units (ground warfare): US/NATO, USSR/RF

Symbol	Name	Troops	Commander
•	Squad	8-15	Sergeant
	Otdelenie	6-12	Serzhant
...	Platoon	20-60	2nd/1st Lieutenant
△	Vzvod	18-48	Praporshchik/(Mladshiy) Leytenant
I	Company	100-250	Captain/Major
⚓	Rota	40-110	Kapitan/Mayor
II	Battalion	500-600	Lt Colonel
🚩	Batal'on	400-700	Podpolkovnik
III	Regiment	1,000-3,000	Colonel
🏰	Polk	500-2,500	Polkovnik
X	Brigade	3,000-5,000	Colonel/Brigadier
🚩	Brigada	1,000-3,000	Polkovnik
XX	Division	10,000-20,000	Maj General
🏰	Diviziya	6,000-12,000	General-Mayor
XXX	Corps	40,000-100,000	Lt General
🏰	Korpus	15,000-50,000	General-Leytenant
XXXX	Army	200,000-500,000	General
🏰	Armiya	100,000-120,000	General-Polkovnik/General Armii
XXXXX	Army Group	500,000-1,000,000	Field Marshal
	Front	900,000-1,300,000	General Armii/Marshal

Winning battles, losing wars

1. Aggregation problem
 - a) tactical victory \neq strategic victory
 - b) tactical brilliance can be in service of deeply flawed strategies
 - c) tactical superiority can prolong war past point where strategic success is possible
2. Loss of strategic initiative
 - a) losing side gradually loses ability to make strategic decisions, then operational decisions



Figure 2: Desert outfoxed

Measures of Effectiveness

How can we tell if we're winning?

1. Loss-based metrics
 - a) losses inflicted ("body counts")
 - b) ratio of enemy/friendly losses (loss-exchange ratio, LER)
 - c) ratio of civilian-to-military losses
2. Geographic metrics
 - a) area of territory gained or lost
3. Temporal metrics
 - a) duration of operation/battle
4. Political metrics
 - a) political concessions from enemy
 - b) popular support
 - c) political "end state" reached

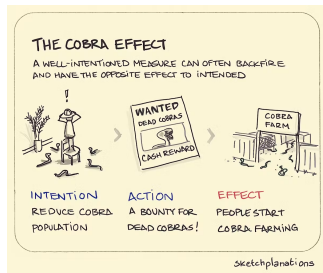


Figure 3: Avoid this

Discussion

- Are some MOE's better than others?
- Which are appropriate for strategic vs. operational or tactical levels?

The Means

Predictors of Victory and Defeat in Battle

Balance of power	Force employment	Geography	Information	Chance
numbers	doctrine	distance	surprise	weather
replacement of losses	strategy	terrain	intelligence	timing
industry/production	training	climate	analysis	luck
logistics	officer quality	roads	communication	
natural resources	technology	fortifications		

Balance of power

1. Numbers
 - a) which side has numerical superiority?
2. Replacement of losses
 - a) which side can more easily recover from attrition?
3. Industrial capacity
 - a) which side can produce at scale?
4. Natural resources
 - a) which side has access to more raw materials?
5. Logistics
 - a) which side can deploy troops and deliver supplies cheaper & faster?



Figure 4: Outproduce to win

Force employment

1. Doctrine
 - a) which side is more prepared for expected type of combat?
2. Strategy
 - a) which side has smarter/clearer vision for how to win war?
3. Training
 - a) are troops ready and able to implement the chosen strategy?
4. Officer & NCO quality
 - a) are small team leaders capable of independent decisions?
 - b) how well is discipline maintained?
 - c) are senior leaders capable of managing large-scale maneuvers?
5. Technology
 - a) which side has more modern and/or efficient equipment?



Figure 5: Outtrain to win

Geography

1. Distance
 - a) how distant is the theater?
 - b) how wide is the front?
2. Terrain
 - a) how severe are natural obstacles to mobility/visibility? (mountains, forests, swamps, river crossings)
3. Climate
 - a) how will heat/cold/humidity affect troops, equipment?
4. Roads
 - a) how many avenues of approach, ground lines of communication (GLOCs) are available?
 - b) what is the capacity of the roads?
 - c) how secure are the roads?
5. Fortifications
 - a) how robust are man-made obstacles vs. advancing troops?



Figure 6: Bezdorizhzhya

Information

1. Surprise
 - a) which side can better elude other's expectations?
2. Intelligence collection
 - a) which side has more information on enemy capabilities, actions?
3. Intelligence analysis
 - a) which side can better separate signal from noise?
4. Communications
 - a) which side can more effectively coordinate across/within units (horizontal)?
 - b) which side has more efficiently communicate orders, feedback up/down the chain (vertical)?



Figure 7: Signal & noise

Fortune

1. Weather
 - a) how might inclement weather affect mobility, visibility, operational tempo?
2. Timing
 - a) which side managed to show up at right place and right time?
3. Luck
 - a) which way is the wind blowing?
 - b) who woke up with a migraine?
 - c) whose rifle jammed?
 - d) why did birds strike jet engine?



Figure 8: Lucky you

Requirements for Short vs. Long Wars

Case study: Blitzkrieg (lightning war)

1. Political-economic strategy
 - a) short, decisive military campaigns vs. weak, isolated opponents
 - b) war “on cheap”, without total mobilization of society, economy
2. Operational concept
(attack, breakthrough, envelop)
 - a) tanks smash weak point in defenses, encircle enemy troops
 - b) motorized infantry consolidate gains, free tanks for next advance
 - c) regular infantry arrives, frees motorized units for next advance
 - d) tactical air power
 - destroy enemy air force
 - disrupt communications
 - close air support

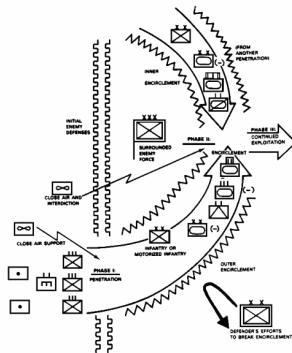


Figure 9: Speed kills

Which resource/capability is advantageous for which contingency?

- | | | | |
|------------------------|--------------------------------|------------------------------------|------------------------------|
| a) Large population | d) Strategic lift capabilities | g) Decentralized command & control | j) Visionary generals |
| b) Natural resources | e) Rapid decision cycles | h) Junior officer training | k) Democracy |
| c) Industrial capacity | f) Combined arms warfare | i) Small unit initiative | l) Economic self-sufficiency |

The choices are:

Short War

Long War

Neither/Both

NEXT MEETING

USSR at War: Stalin's Bid for Strategic Depth (Th, Oct. 23)

- why did USSR enter into non-aggression pact with Germany?
- what explains initial Soviet battlefield failures vs Finland?
- what explains the eventual outcome of the Soviet-Finnish War?