



The Battle of Prokhorovka

Tony Boyles, INTA

Kristin Hooper, INTA

Ryan Jones, CS

Zack Lindberg, INTA

Jack Morgan, CS

Prokhorovka



Prokhorovka

Hermann Hoth



von Manstein



German 1st

German 3rd

German 2nd

Разное
(разное)

Prokhorovka



Soviet XVIII

5th Guard

Soviet XXIX

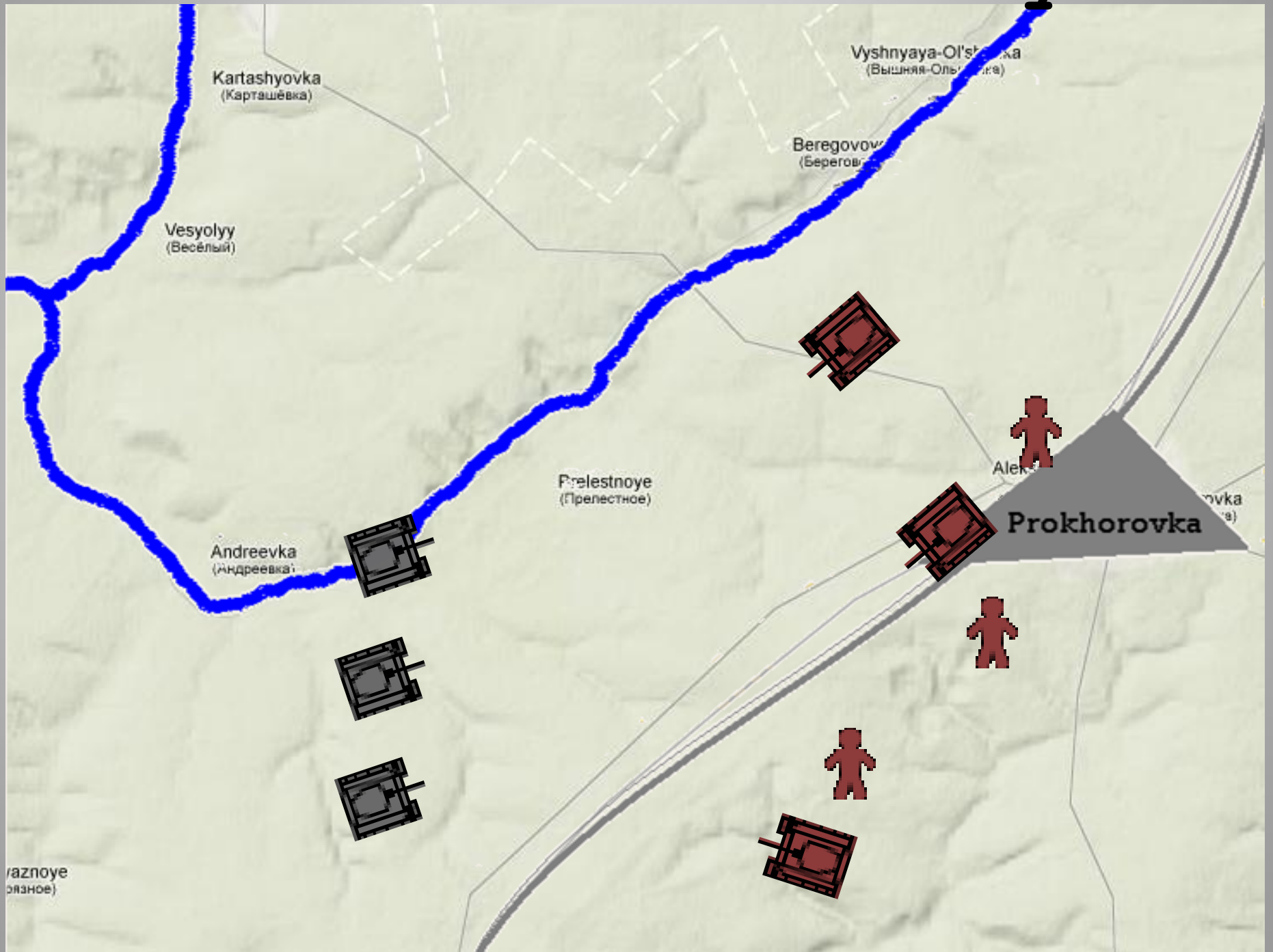
Pavel Rotmistrov

II Guards

Soviet XVIII



July 12th

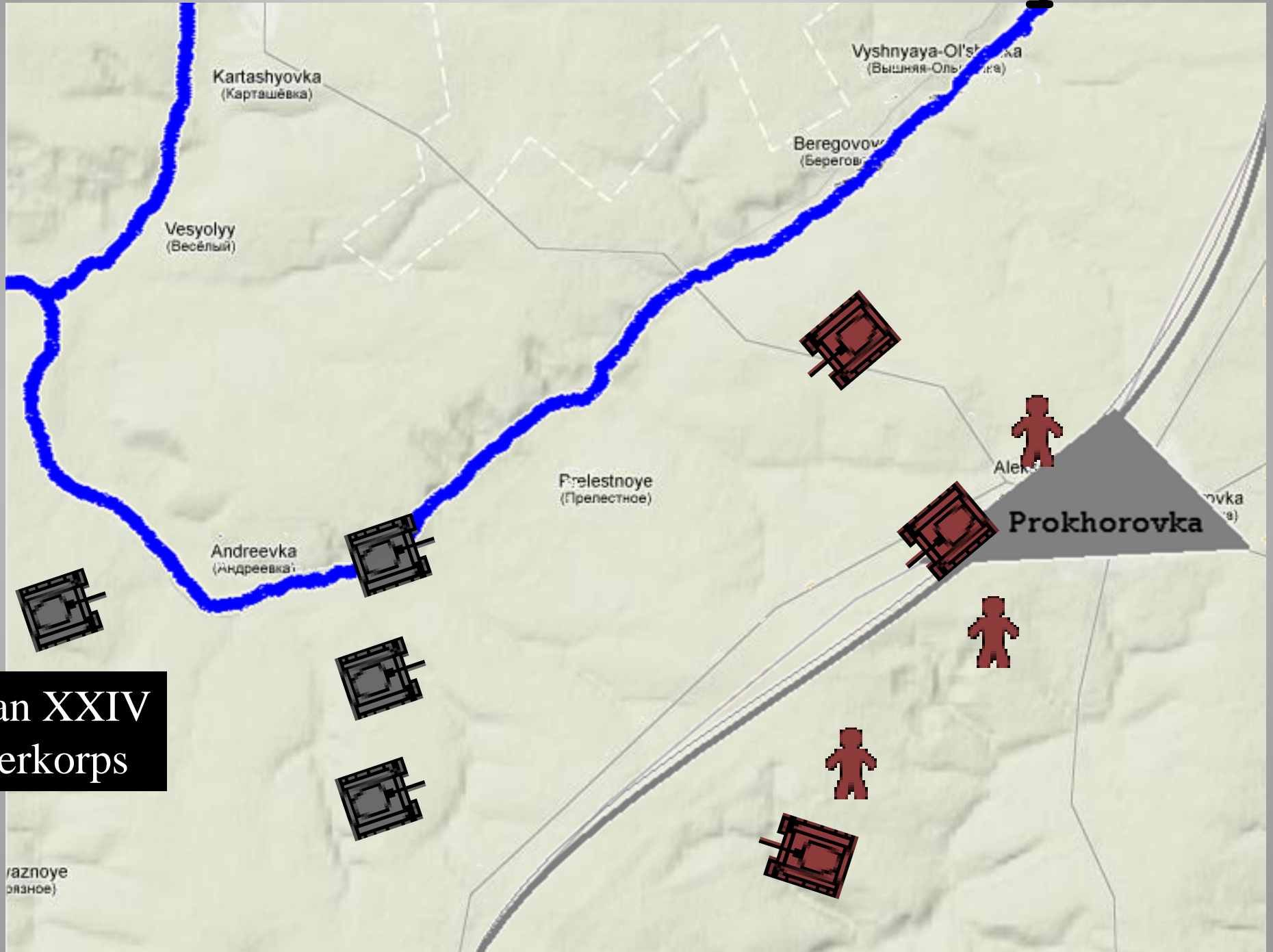


Prokhorovka



Would the Germans have won the battle if Hitler had allowed von Manstein to put the XXIV Panzerkorps in the battle, instead of canceling Operation Citadel?

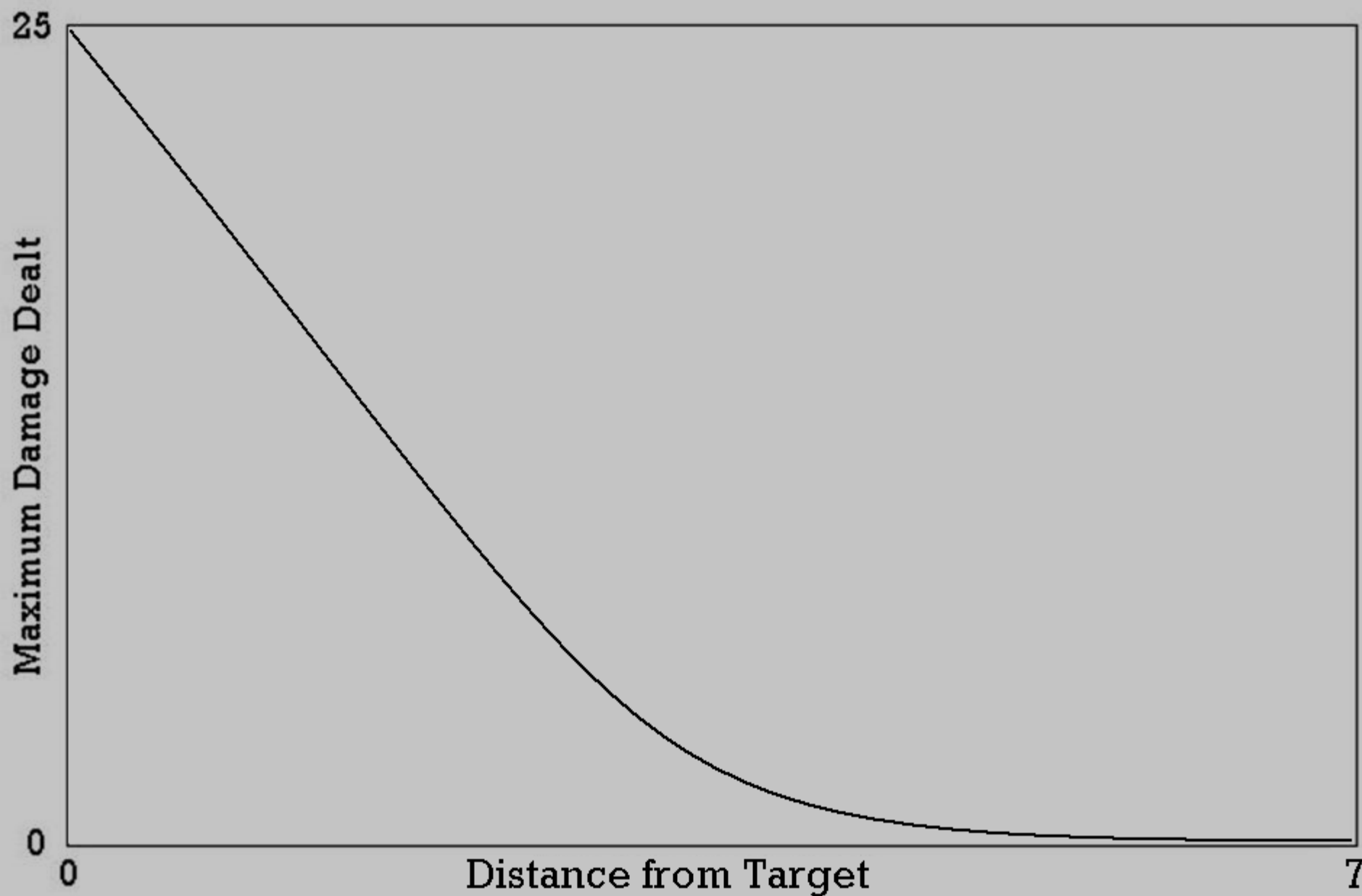
July 12th



German XXIV
Panzerkorps

Разное
(разное)

Model



Model

$$D = \frac{ar}{d^2} \times \frac{h_n}{h_0}$$

Where:

D is the Damage Dealt

a is the accuracy of the shooter

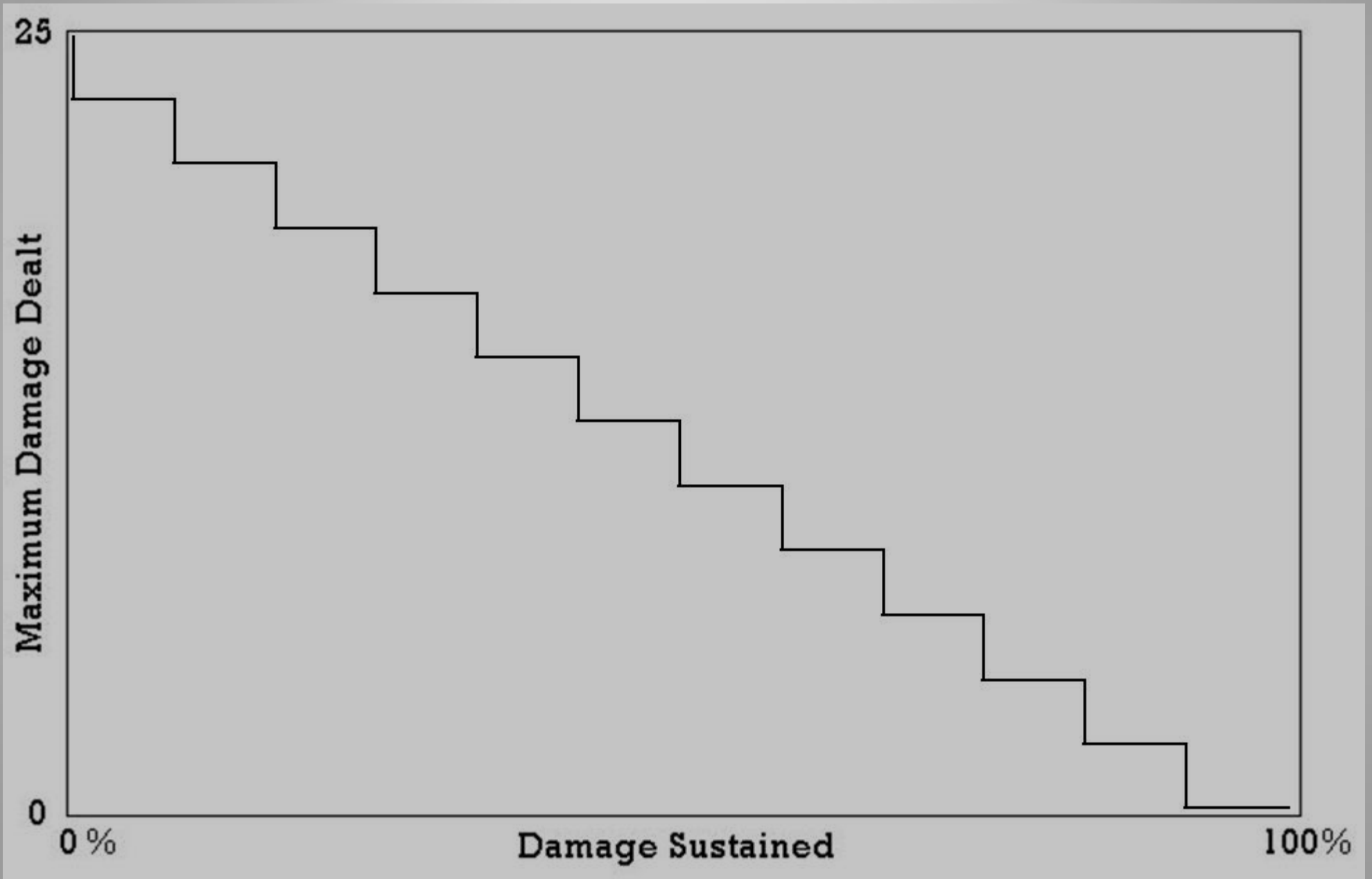
r is a normalized random number between 0 and 1

d is the distance (in patches) between the attacker and target

h_n is the attacker's health at n^{th} tick

h_0 is the attacker's maximum health

Model



[Model]

Application to Today

- This example shows that the analysis of a Field Marshall involved more intimately with a battle can be more discerning than that of a commander more removed from the field of battle
- In a Clausewitzian manner, was will the Center of Gravity for the two parties involved? Did the Russians simply have greater will? (e.g. Vietnam, Iraq, etc...)
- Can this battle help us to understand the modern Russian war machine?

References

- Crow, Charles L. “An Operational Level Analysis of Soviet Armored Formations in the Deliberate Defense in the Battle of Kursk”. 1943, US Army Command and General Staff College, May, 1985.
- Nipe Jr., George M. *Germany’s Lost Victory, World War II*, February 1998.
- Turner, Frank C., *Prokhorovka: The Great Russian Tank Encounter Battle With the Germans*, *Armor*, May 1993.
- Frankson, Anders and Niklas Zetterling. *Kursk: A Statistical Analysis*