

THE SCIENTIFIC ADVISOR
U.S. ARMY TRAINING AND DOCTRINE COMMAND

For your information from Dr. Berenson.

WHY ARE TANKS NEEDED?
(Plus Why War? And Why Armies?)

Dr. Paul J. Berenson
Scientific Advisor to CG
(804) 727-3869

I. INEVITABILITY OF WAR

A. Why War?

- Some argue that war is now irrational, and to eliminate war it is only necessary to educate all to the new realities of economic dependence, global communications, and the nuclear/biological devastation that war would cause. However, historical facts and logic lead to a contrary conclusion.
- “War has been a persistent part of human experience since before the birth of civilization.” Kagan, On the Origins of War and the Preservation of Peace. 1994
- “In the 2,340 weeks that passed between 1945 and 1990, only three weeks were truly war free.” Toffler, War and Anti-War
- “There had been only 268 years free of war in the previous 3421.” Durant, The Lessons of History
- “War is probably part of the human condition.” Kagan, On the Origins of War
- Wars and other conflicts are caused principally by human nature, which has not changed.
- “Plato and Aristotle took enduring human nature and the persistence of war for granted -- and concluded that war was inevitable for mankind.” Kagan, On the Origins of War
- “We are uniquely human because for millions of years, we alone killed for a living.” Ardrey, The Hunting Hypothesis
- “War is in our genes.” Ardrey, The Hunting Hypothesis
- “War is a sickness, though it may be humankind’s ‘sickness until death.’” Stoessinger, Why Nations go to War

- While human beings, particularly Western human beings, like to believe they are rational and behave rationally, much (most?) human behavior is not rational, is driven by forces in human nature that are poorly understood, and often beyond our ability to control.
- “No nation that began a major war in this century emerged a winner.”
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- “Wars were begun by people.” Stoessinger, Why Nations Go To War
- Thucydides found that people go to war out of “honor, fear, and interest.”
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- War is caused by human nature, often irrational or based on inaccurate perceptions. War is generally a result of the human compulsion for greater power, security, wealth, respect and prestige, and the often irrational fear of perceived threats to these.
- “Why does man wage war?” Einstein. “Because man is what he is.” Freud
- “The current condition of the world, where war among major powers is hard to conceive because one of them has overwhelming military superiority and no wish to expand, will not last.” Kagan, On the Origins of War
- “The elimination of war is an implausible expectation.” Kagan, On the Origins of War and the Preservation of Peace
- There may be fewer wars between major nations as a result of the increasing number of democracies which historically have not usually initiated wars. However, the increasing number of nations, increasing terrorism and subnational war, plus future computer network war and biological war require the U.S. to continue to be prepared to win increasing wars if we hope to deter most of them.
- “Only the dead have seen the end of war.” Plato

B. What is War? (Object of War)

- “The object of war is a better state of peace -- hence it is essential to conduct war with constant regard to the peace you desire.” Liddell-Hart
- “No one should start a war without first being clear what he intends to achieve by that war and how he intends to conduct it.” Clausewitz, On War
- “War is a continuation of politics by other means.” Clausewitz, On War

- “The U.S. Armed Forces are one component of national power: economic, diplomatic, informational and military.” Joint Warfare, JP 1
- “The essence of war is a violent clash between hostile military forces to accomplish political purpose.” U.S. Army FM 100-1
- “Politics is war without bloodshed. War is politics with bloodshed.” Mao Tse-Tung
- “The object of war is to subdue the hostile will of the enemy.” Clausewitz
- “The essence of war is a violent clash between two hostile, independent and irreconcilable wills, each trying to impose itself on the other.” USMC FMFM 1
- “The object of war is to impose our will on our enemy. The means to that end is the organized application or threat of violence by military force.” USMC FMFM 1
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- “The conduct of war is the art and science of using military force with other instruments of national power to achieve victory. Military victory is normally the decisive defeat of an enemy which breaks his will to wage war.” USAF AFM 1-1
- “The wartime objectives of Army forces are land force dominance, that is, to defeat the enemy’s land forces, to seize, occupy and defend land area, and to assist in destroying the enemy’s will to resist.” FM 100-1
- “The objective of the military in war is victory over the opposing military force at least cost to American soldiers.” US Army FM 100-5
- “Military force remains an indispensable element of our nation’s power.” Clinton, A National Security Strategy of Engagement and Enlargement. 1995

II. WHY INFORMATION WARFARE?

- Information warfare has always been an important part of war.
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- “Always mystify, mislead and surprise the enemy.” Stonewall Jackson
- “Moral forces exert a greater influence on the motive and outcome of war than do physical.” USMC FMFM 1
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- “War might have as much or more to do with the idea of willpower and nonfighting than it does with the idea of physical power and fighting.” Szafranski
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- “Supreme excellence consists of breaking the enemy’s resistance without fighting.” Sun Tzu
- “To subdue the enemy without fighting is the acme of skill.” Sun Tzu. This is an ideal that is seldom realized.
- While information warfare is not new, emerging technologies are making information warfare much more effective and important in producing decisive victory at minimum cost.

III. COMBAT

A. Why Combat?

- “The idea of winning without battle is seldom realistic.” Handel, Sun Tzu and Clausewitz Compared
- “Diplomacy without armaments is like music without instruments.” Frederick the Great
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IV. NEED FOR ARMIES (WHY LAND FORCES?)

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- “You can fly over a land forever, you may bomb it, atomize, pulverize it and wipe it clean of life, but if you desire to defend it, protect it, and keep it for civilization, you must do this on the ground the way the Roman Legions did, by putting your soldiers into the mud.” T.R. Fehrenbach This Kind of War
- The preceding statements are not intended to downplay the importance of the other services to winning quickly with minimum casualties. Air superiority, strategic mobility, attack of strategic infrastructure (power, transportation, communications, etc), and destruction of lines of communication and logistics are essential to enable land forces to operate most effectively and gain control of the land with minimum casualties.
- “Assumption of a continuing commitment to the active preservation of peace -- requires maintaining a strong military power and willingness to use it.” Kagan, On the Origins of War
- “The object of war is a better state of peace - hence it is essential to conduct war with constant regard for the peace you desire.” Liddell-Hart.
- “The Army’s fundamental purpose is to fight and win the nation’s wars by establishing the conditions for lasting peace through land force dominance.” FM 100-1
- “While other services may attack the land and structures and peoples upon it, only the Army, by its long-term physical presence, can compel lasting change.” FM 100-1

V. CLOSE COMBAT OPERATIONS

A. Why Close Combat?

- Close combat occurs when forces are in immediate contact with the enemy, who can generally be seen (line-of-sight), and the principal lethal systems are direct line-of-sight weapons.
- If the adversary does not surrender after attack from a distance with bombs, shells and missiles, it becomes necessary to crush him with close combat, finally destroying both his physical force and his will. Close combat is the ultimate non-nuclear threat and is generally necessary.
- Close combat is a fundamental task of the Army, is conducted principally by infantry and armor, and is the most difficult and dangerous task for the soldier.
- "The direct annihilation of the enemy's forces must always be the dominant consideration." Clausewitz
- "Force the enemy into a state of chaos and then crush him." Sun Tzu
- "The defending Iraqi commander later remarked that after losing 2 of his 39 T-72s in five weeks of air attack, the 2d Cavalry had annihilated his entire command in fewer than six minutes in what later became known as the Battle of 73 Easting." Scales, Certain Victory
- The need remains to defeat enemy forces on the ground, with close combat as the ultimate enforcer, if necessary. There is no logical or historical reason to believe this will change in the foreseeable future. The U.S. Army must always have the capability to force the enemy to surrender (quit) by the threat, and in some cases the reality, of annihilation.
- Close combat assault, exploitation and battle termination functions are essential parts of land warfare.
- Infantry and armor not only destroy opposing forces in close combat, but seize and hold terrain and populations, thereby providing the basis for lasting change.

B. Why Tanks?

- Tanks are the principal close combat vehicle in most terrain.
- Because of the proliferation of advanced precision anti-armor munitions and armed helicopters, the viability of the tank has been questioned.
- While the details of a tank might change, e.g., propulsion, protection, crew size, and armament, a combat vehicle having the generic characteristics of a “tank” will be needed. (Note the name “tank” is not sacred. It is what the troops called the new armored vehicle in WW I because they were concealed as water storage tanks.)
- The major technical issue for the future tank is how to provide adequate survivability considering the proliferation of advanced anti-tank missiles and mines. Active defense, electronic warfare, missile countermeasures, and force defense need evaluation, along with the potential for advanced armor.
- Tanks are the principal assault weapons in close operations.
- Tanks terminate battles by forcing the enemy to quit or die in close combat.
- Tanks are intimidating. They create fear, chaos and panic in adversaries. The shock effect of the tank has enabled it to be effective in assault, even when out of ammunition (unknown to adversary).
- “The American people expect decisive victory and abhor unnecessary casualties.” FM 100-5.
- Tanks are precision fire weapons that minimize collateral damage.
- “Tanks are a life saving weapon.” Guderian
- The tank is the principal combat vehicle for making soldiers more mobile, lethal and survivable; these attributes have always been sought.
- Land forces will always need a mobile, survivable, lethal, dominant close combat vehicle, i.e., a “tank.”



DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND
OFFICE OF THE COMMANDING GENERAL
FORT MONROE, VIRGINIA 23651-5000

REPLY TO
ATTENTION OF

ATCG-S

20 Sep 95

MEMORANDUM FOR BG(P) Lon Maggart, Commanding General, U.S. Army Armor Center, Ft. Knox, KY

SUBJECT: Why Tanks (along with Why War and Why Armies)?

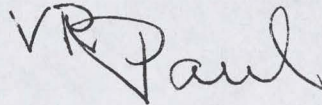
1. The enclosed think-piece gives a top down rationale for tanks. The catalyst was recent ASB Tank Modernization Panel discussions. It was equally motivated by a perception that Army documents do not adequately reflect thinking about war from the top down, and that this weakens the Army rationale and support for the nation's military needs.
2. The U.S. Army appears to start thinking about war assuming that it must be able to destroy opposing land forces. While this is true, as shown in the enclosure, the destruction of opposing land forces is a means to an end, not an end in itself.
3. The intent of the enclosure is to provide an objective, logical basis for Army requirements, e.g., the tank, starting from war and the military as an instrument of national policy. The enclosure is intended to proceed through a series of logical steps from policy to the tank, which necessarily includes the likelihood of war in the future, information warfare, and the need for land forces. The point paper was constructed principally from enduring key points and quotations from doctrinal, historical and scientific sources.
4. The paper is aimed at people both outside and inside the Army. The first half of the paper applies to all Services. The intent is for the paper to be acceptable to all the Services.
5. I have sent copies to some thinkers about war at the Air War College, whom I hope will provide good, critical comments. My perception is the Air Force does well thinking about the political/strategic level of conflict, which the Army almost ignores in its umbrella documents. The Army does well thinking about the operational/tactical level, focusing on destroying physical force, but with inadequate emphasis on destroying "willpower"; I particularly like USMC FMFM 1, Warfighting in this regard.
6. The paper should be considered a draft at this point because it needs the benefit of a thorough critique. It will be widely distributed, hoping to get frank, hard-hitting comments from those with the interest and time to review the paper. The enclosure reflects personal views and does not necessarily represent official TRADOC/U.S. Army positions.

ATCG-S

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7. The enclosure, in its present form, should be useful to you and others. I would suggest that, after the paper reflects the many useful comments I hope to receive from people copied, we consider getting a bright young officer at Ft. Knox, Ft. Leavenworth, Army War College, West Point or elsewhere to flesh it out and publish it in Military Review, Parameters, or some other appropriate publication to educate, and stimulate further thought.

8. Looking forward to your comments. Hope this is useful.

A handwritten signature in dark ink. It begins with the letters 'VR' in a stylized, blocky font, followed by a large, fluid, cursive 'P' that loops around. The name 'Paul' is written in a cursive script to the right of the 'P'.

PAUL J. BERENSON, Ph.D.
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Enclosure

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- While the details of a tank might change, e.g., propulsion, protection, crew size, and armament, a combat vehicle having the generic characteristics of a “tank” will be needed. (Note the name “tank” is not sacred. It is what the troops called the new armored vehicle in WW I because they were concealed as water storage tanks.)
- The major technical issue for the future tank is how to provide adequate survivability considering the proliferation of advanced anti-tank missiles and mines. Active defense, electronic warfare, missile countermeasures, and force defense need evaluation, along with the potential for advanced armor.
- Tanks are the principal assault weapons in close operations.
- Tanks terminate battles by forcing the enemy to quit or die in close combat.
- Tanks are intimidating. They create fear, chaos and panic in adversaries. The shock effect of the tank has enabled it to be effective in assault, even when out of ammunition (unknown to adversary).
- “The American people expect decisive victory and abhor unnecessary casualties.” FM 100-5.
- Tanks are precision fire weapons that minimize collateral damage.
- “Tanks are a life saving weapon.” Guderian
- The tank is the principal combat vehicle for making soldiers more mobile, lethal and survivable; these attributes have always been sought.
- Land forces will always need a mobile, survivable, lethal, dominant close combat vehicle, i.e., a “tank.”