

The Great Wheel Versus Track Debate

*Directorate of Force Development Opens a Dialogue
On Merits of Competing Systems*

The Armor Center's vision for combat and force development has always been to provide soldiers and commanders the best organizations and equipment possible that will enable them to dominate the 21st century battlefield. As the Army breaches the 21st century, it is paramount that new weapon systems be developed and fielded that exhibit mobility, lethality, survivability, transportability, reliability, and supportability characteristics far greater than anything produced in the past. As we shape strategies for future ground combat platforms, many issues arise which require further study to resolve. One such issue that requires an unbiased analysis is whether emerging systems should be wheeled or tracked.

The wheel or track configuration issue will be a key decision for our Army and the Mounted Force in the next century. In an effort to resolve questions surrounding this issue, the Armor Center will host an open dialogue on wheels versus tracks during 1999. The forum for discussion will be the *ARMOR* Magazine and the Fort Knox Home Page. A recently published *ARMOR* Magazine article entitled "The Wheel Versus Track Dilemma" (Mar/Apr 98 edition) has set the stage for discussion. All interested individuals should read this article in order to understand the fundamental laws at work. A copy of the article and other relevant information on wheel versus track issues may be found on the Fort Knox Home Page under the Directorate of Force Development link (<http://147.238.100.101/center/dfd/wvt.htm>). This web site will be periodically updated with additional information/data relevant to the wheels and tracks topic as it becomes available. If you have comments (pro or con) relative to this issue, now is the time to let your voice be heard. The Armor Center Points of Contact are:

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The need to produce combat vehicles quickly during wartime led to the use of both wheeled and tracked reconnaissance vehicles in World War II. At right above, the M8 armored car, seen scouting in France in 1944, was based on 2½-ton truck technology. The tracked vehicle at right was a T8E1 armored reconnaissance vehicle which was essentially a turret-less M5-series tank with a .50 cal on a large ring mount.



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The Armor Center has requested a HQ TRADOC review and update of the various wheel versus track studies conducted in the late '80s and early '90s. This is a necessary step toward incorporating current or emerging wheel and track technologies that may impact the conclusions reached in those earlier studies.

The Armor Center will publish a series of articles in *ARMOR* Magazine over the next year discussing the key issues surrounding wheels versus tracks. Potential points for discussion include mobility, reliability, transportability and supportability aspects of wheeled and tracked combat platforms; rubber tracks; hydro-

pneumatic suspension systems; and in-wheel electric drives. If you are aware of new wheel or track technologies that positively impact these or other relevant points, let the Mounted Force know by submitting an article for publication (or contact one of the above mentioned POCs). Articles of this nature should be forwarded to *ARMOR* Magazine for review and possible publication starting with the Jan/Feb 1999 edition.

The Armor Center's goal for hosting this year long discussion is twofold. First, to conduct a fair and open examination of the merits and shortcomings of both wheeled and tracked configurations without having any pre-determined choice as to the outcome. Second, to arm key leaders with the fundamental knowledge necessary to make informed decisions regarding wheel versus track configurations. These decisions will shape the future for Army ground combat platforms in the next century. Time To Mount Up!