



Assessing Conventional Army Demands and Requirements for Ultra-Light Tactical Mobility

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The Army often uses vehicles informally classified as ultra-light tactical mobility (UTM). Army Forces Command plans to reinstitute formal UTM capabilities by establishing sets of UTM vehicles for airborne and initial entry forces. This report assesses the demands, requirements, current nonstandard capacity, and key considerations for developing and sustaining established Army UTM fleets and supporting capabilities.



RESEARCH QUESTIONS

- What conditions have precipitated and will likely precipitate ultra-light mobility (UTM) needs, the kind historically met by motorcycles, ATVs, or quadrupeds?
- What DOTMLPF capabilities currently exist within Army and other DoD forces to support development, employment, and sustainment of UTM capabilities?
- What UTM capabilities are required to meet current and future mobility needs?
- How can these UTM capabilities be best used by Army forces in current and future operations?



KEY FINDINGS

UTM is often used by Army forces, formally or ad hoc, based on a range of operational factors.

UTM has tactical drawbacks.

- The tactical threat is the most difficult factor to offset, and it has routinely outweighed the potential benefits of UTM in the judgment of operational commanders.

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UTM capabilities provide a demonstrated alternative to increase operational flexibility through reduction of requirements for delivering an operationally significant force.

- Other militaries, services, and individual Army units currently have appropriate and tactically beneficial methods for employing UTM.

Lacking validation, UTM requirements receive little official attention.

- The Army can develop the basic UTM capability needed with some limited foundational investments.

More systematic Army testing and evaluation is needed to fully assess the operational impact of UTM.

- Insufficient metrics, data collection, and evaluations exist to fully assess UTM employment and operational effectiveness or to assess the impact on conducted operations from not having UTM capabilities.

The increasing size of standard service vehicles creates a gap in tactical mobility.

- The growth in size and weight of the Army's SSV has resulted in unmet tactical mobility requirements that UTM can address under some circumstances.



RECOMMENDATIONS

- Refine Army doctrine on tactical maneuver to provide sufficient concepts and technical information for effective and safe tactical UTM employment.
- Develop an Army Techniques Publication or comparable resource that specifically addresses training, planning, employment, and sustainment considerations associated with operational UTM use.
- Develop venues with other services and Special Operations Forces to determine common UTM needs and take advantage of economies of scale for resource-conscious management of UTM capabilities.
- Consider using specialized National Guard units to maintain low-density UTM competencies and experience as a cost-effective method to maintain and transfer core UTM capabilities.
- Develop training resources to establish and maintain basic UTM knowledge that units can flexibly apply to develop and employ UTM capabilities.
- Coordinate training programs and resources with the USMC and SOF to develop UTM training strategies to meet expertise requirements.
- Formally recognize the Army need for some UTM materiel capabilities and define Ultra-Light Tactical Vehicles (ULTVs) as a distinct category of equipment in Army materiel strategy.
- Test and evaluate UTM platforms to identify materiel alternatives that can be tailored to meet requirements across a range of mission profiles for conventional Army units.
- Develop a UTM support program that enables authorized units to satisfy sustainment requirements.
- Provide training and doctrinal resources to enable leader consideration of UTM capabilities and to enable planning for UTM employment.