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Identifying Mobility Needs

- Soldier Mobility/Transportation
  - Rear-Area Logistical Support
  - Flight Line Support
  - Unmanned Platform System
  - Special Operations Personnel

- Administrative and Security Personnel
  - Inter-building Transport Saves Fuel on Fleet Vehicles
  - Perimeter Security Patrol
  - Military Police (MPs) – Force Protection
Mission Profiles

Unmanned
- Cargo Hauling Assistance for Foot Patrol Soldiers
- Bomb Detection/Disarmament
- Forward-area Reconnaissance
- Air-Dropped Package Retrieval
- Remote-Operated Sentry

Manned
- Perimeter Security Patrol (Military Police)
- Small Cargo Hauling (<150lbs.)
- Homeland Defense
- Special Forces Mobility
- Inter-building Transport of Administrative Personnel
Platform Profiles

**Unmanned**
- Radio-Controlled
- American Chariot
- Remote-Tele-Operated
- Segway (DARPA)
- John Deere AWARE Gator

**Manned**
- American Chariot (Military Police)
- Segway (Admin. Support Personnel Transport)
- John Deere Gator
- Hybrid-electric Gator

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American Chariot

Features:
- Drivetrain: 2.5 HP
- Electric Motors
- Top Speed: 20 MPH
- Range: 12-15 Miles
- Power Source: 2-12V
- 20Ah Batteries
- Capacity: 350 lbs.
- Maximum Grade: 12%
Segway HT

Features

- Self-Balancing Technology
- Electric Drivetrain
- Range: 5-15 Miles
- Top Speed: 6-12.5 MPH
- Payload:
  - 250 lbs. (Passenger)
  - 75 lbs. (Cargo)
- Weight: 95 lbs.
John Deere Gators

Features

- Hybrid-Electric Drivetrain
- Diesel or Fuel Cell Battery
- 4-Wheel Drive/Steering
- Fully Independent Suspension
- Unmanned, Autonomous
- AWARE version
- Camouflage Standard Version
Wavecrest Electric Motorcycle

Features

- Electric Drivetrain:
  Fuel Cell or Battery Power
  In-Hub Motor
- Load: 350lbs Rider+Cargo
- Range: 63 mi. (optimal)
- Top Speed: 63 MPH
- 0-60 MPH: 6.5s
References/Sources

- Segway Human Transport (HT) — Participant Workbook, Rev. 3.4 - December 2002
- American Chariot Website: www.americanchariot.com
- John Deere Website: www.deere.com
- Wavecrest Labs Website: www.wavecrestlabs.com

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OPSEC REVIEW CERTIFICATION
(AR 530-1, Operations Security)

I am aware that there is foreign intelligence interest in open source publications. I have sufficient technical expertise in the subject matter of this paper to make a determination that the net benefit of this public release outweighs any potential damage.

Reviewer: David Gorsich
Grade: Research Scientist
Signature Date: 30 May 05

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An abstract, summary, or copy of the information reviewed is available for review.

Reviewer's Determination (check one)

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