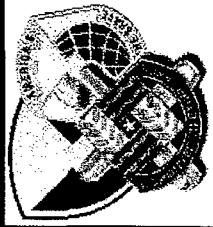
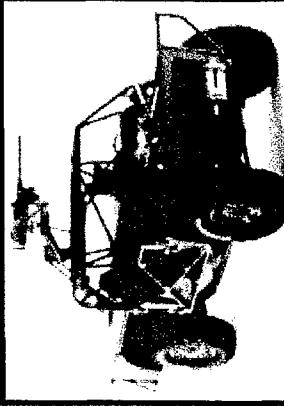
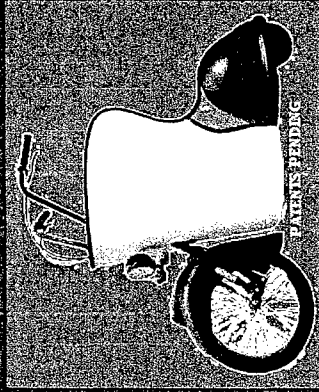
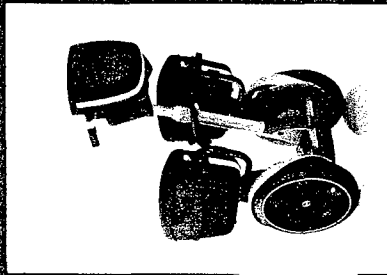




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# MOBILITY FOR THE INDIVIDUAL SOLDIER

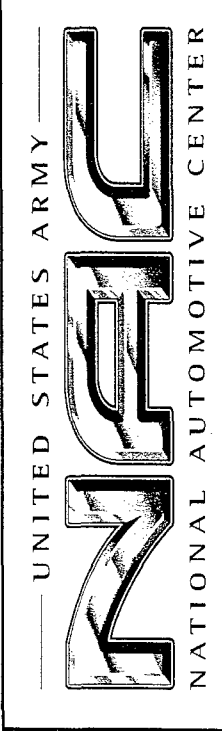


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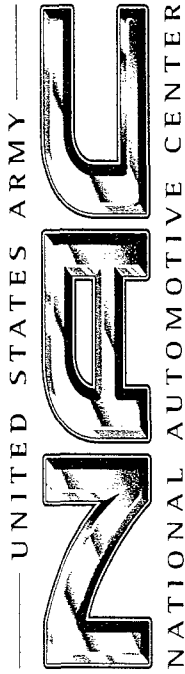
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## *Outline*

- **Introduction – Identifying DoD Personnel/Soldier Mobility Needs**
- **Mission and Platform Profiles**
  - Unmanned Autonomous or Semi-autonomous Intelligent Platform
  - Manned, One- or Two-Man Mobility Transport
  - Robotic “Follower”
- **Various Platforms Reviewed**
  - Segway HT
  - American Chariot
  - John Deere Hybrid-electric Gator
  - Wavecrest Electric Motorcycle (Kawasaki KX-125)
- **References**
- **Contact Information**



# *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

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## *Mission Profiles*

### Unmanned

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

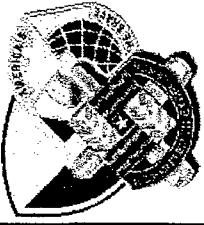
### Manned

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

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## 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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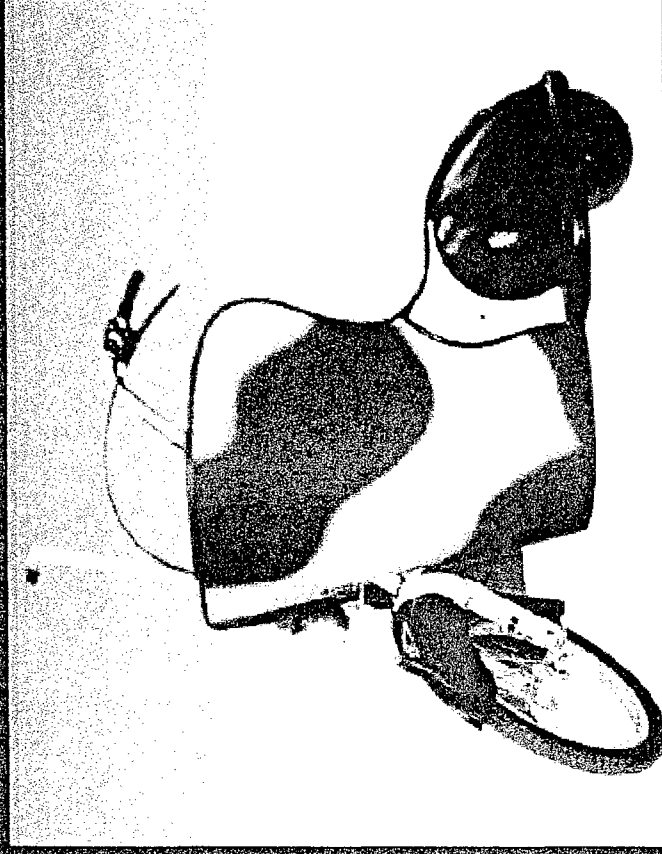
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# American Chariot

## Features

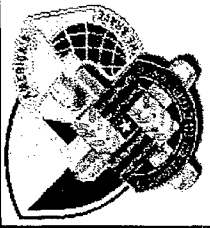
- Drivetrain: 2.5 HP Electric Motors
- Top Speed: 20 MPH
- Range: 12-15 Miles
- Power Source: 2-12V, 40Ah Batteries
- Capacity: 350 lbs.
- Maximum Grade: 12%



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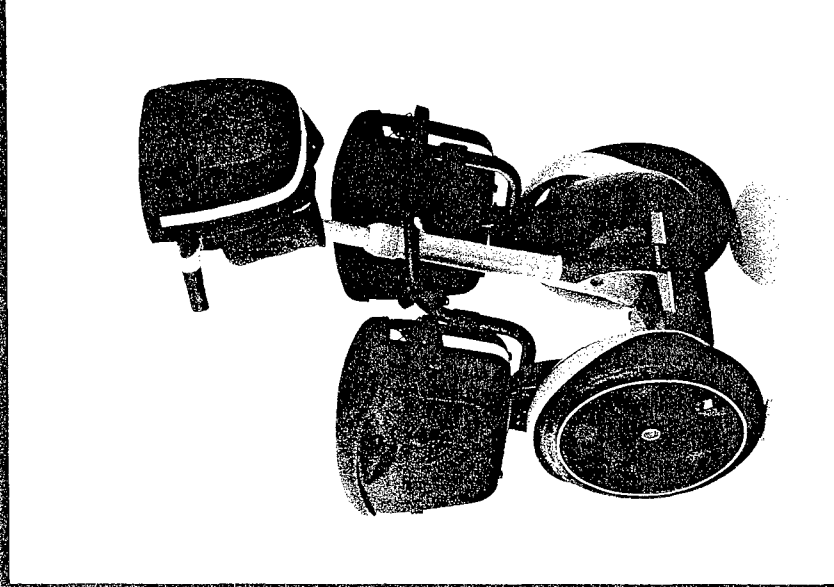
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## Segway HT

### Features

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



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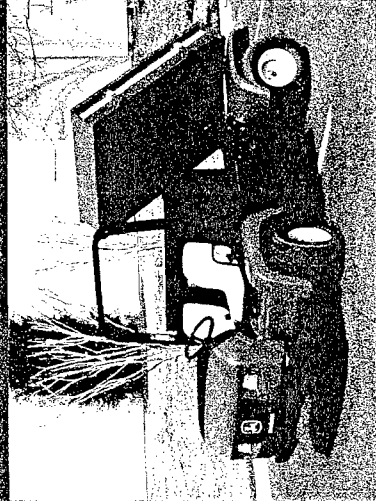




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# John Deere Gators



## Features

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

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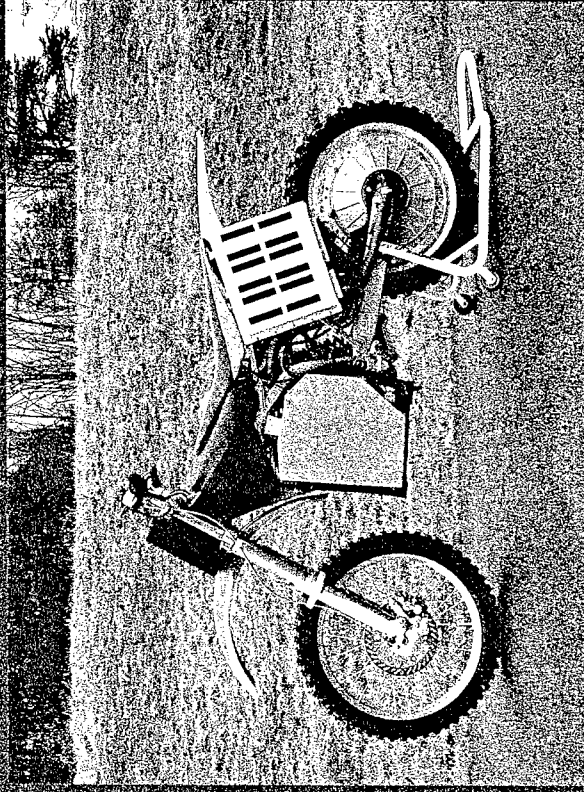
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# Wavecrest Electric Motorcycle

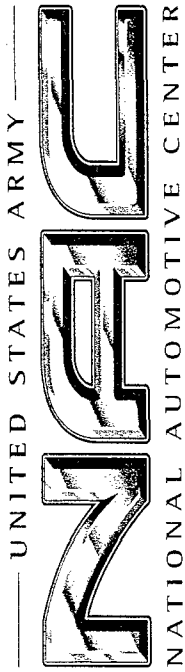
## Features

- 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



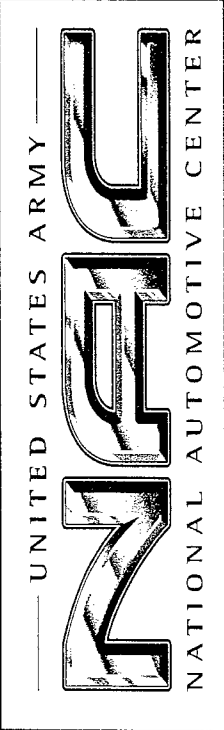
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- Segway Human Transport (SHT) -- Participant Workbook, Rev.3.4 - December 2002
- American Chariot Website: [www.americanchariot.com](http://www.americanchariot.com)
- John Deere Website: [www.deere.com](http://www.deere.com)
- Wavecrest Labs. Website: [www.wavecrestlabs.com](http://www.wavecrestlabs.com)



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