

STEED



SILENT TACTICAL ENERGY ENHANCED DISMOUNT



Capability Description

- Innovative solution to lighten the load for dismounted troops and enhance close combat lethality and human performance
- All-terrain, electric powered cart. Water fording, zero turning radius, tactically silent, zero emissions, ascend/descend stairs
- Enables single operator to move up to 500 lbs. 15-20 miles
- Collapsible to 30" length and fits in rotomolded case, transport in UH-60, MRZR bed, LMTV between troops, air deployable, towable, etc.
- Versatile payload platform, low center of gravity allows variety of payloads
- Small tactical unit dominance STEED enables:

 1) Increased load capacity 2) Human Performance reduced fatigue and stress, extended range and duration 3) Sustainment ammo, water, food, reduced resupply 4) Squad expeditionary power over 72 hour supply 5) Heavy weapons .50 cal, 81mm mortar, MK47, Javelin, APOBS 45m 6)Dense urban and CBRN subterranean, urban, ballistic shield protection, breaching equipment, contaminated items, heavy equipment 7) Rapid CASEVAC 1:1 ratio 8) Carry medium UAV/UGVs

System Operational Perforamnce

- Participated in AFC/SOCOM Combat Validation April-May 2019, AEWE19, and has been fielded by units OCONUS. System was tested by government subject matter experts (AWG, ARL, HRED) in real-world mission scenarios:
 - 1) Mission time: **35-64% reduction** in mission times, essentially 3x faster dismounted movement
 - 2) Soldier Performance: **60% reduction** in calorie burn, less effort, lower exertion
 - 3) Sustainment and Soldier Load: **400% payload increase** and reduction in metabolic rate
 - 4) Mission Effectiveness and Security Posture: **80% reduction** in troop to task
 - 5) CASEVAC: 17% lower accelerations on patient, **1:1 soldier to** casualty ratio for movement
 - 6) Dismounted Power: Provides small unit expeditionary power exceeding 72-hour mission

Capability Gap

- Identified soldier load capability gaps, wheeled carts recommended:
 - 2016 AMEDD, Injury Prevention, 12-008-0416
 - 2017 Army Technique Publication Foot Marches, ATP 3-21.18 (FM 21-18)
 - 2018, MCoE Industry Day, TCM-IBCT soldier load top-5 challenge
 - 2018, CNAS, Soldier's Heavy Load ARL sponsored report highlighted consequences of heavy burdened dismounted troops

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