



Objective Requirement Implementation

Body Suite w/Physiological Sensors
Benefits: Increased Survivability

Increased Data Rate and Range
Benefits: Increased C2

Platform Connectivity
Benefits: Increased SA

Hybrid Fuel Cell/ Rechargeable Battery
Benefits: Reduced Weight & Cost & Increase Mission Duration



Fused Thermal/I2, Increased FOV & Color Display
Benefits: Target Acquisition

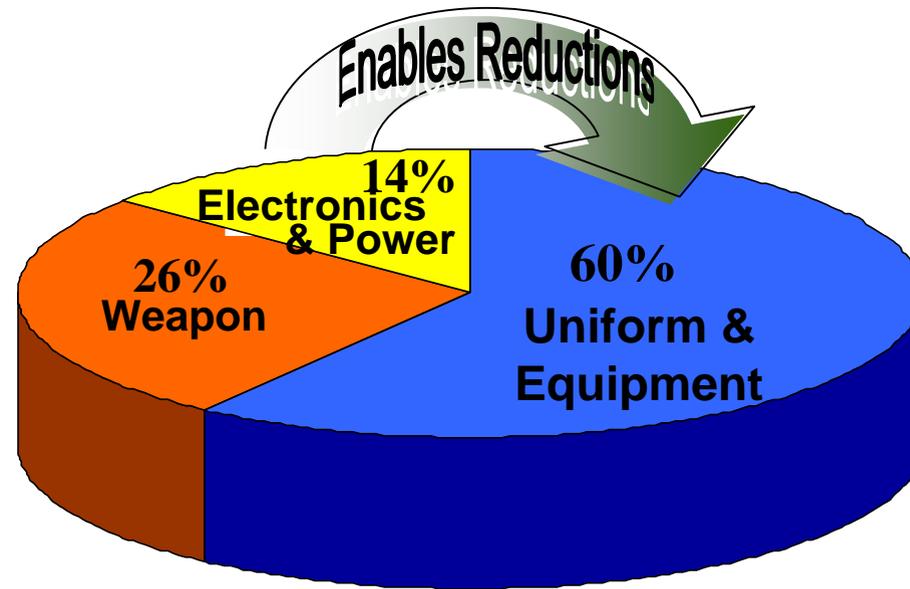
Multifunction Laser
Benefits: Reduced Weight & Cost (Eliminates Individual PEQ-2C, PAC-4, MILES, CID Laser, Borelight, Range Finding Lasers)

Objective Individual Combat Weapon
Benefit: Increased Lethality

Integrated Environmental, NBC, Signature, & Ballistic Protection Uniform
Benefits: Reduced Weight (Eliminates Over-Garments)

Over 80 Objective Requirements in the ORD

Soldier Systems Weight Distribution



Electronics – 13 Lbs.

Uniform – 55 Lbs.

Weapon – 24 Lbs.

79 Lbs.

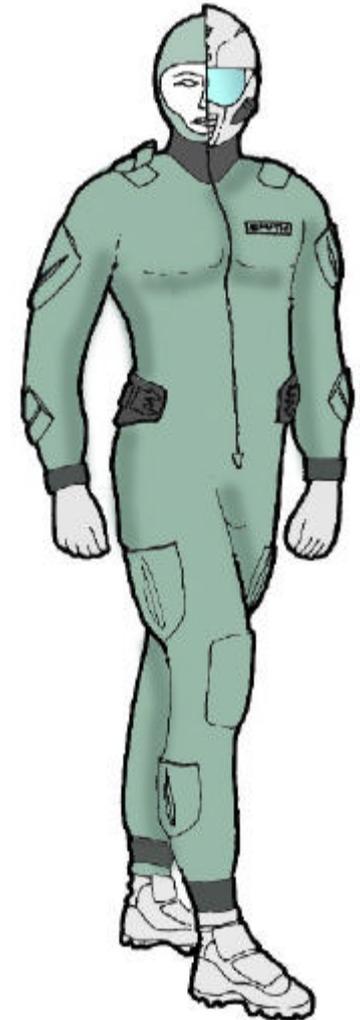
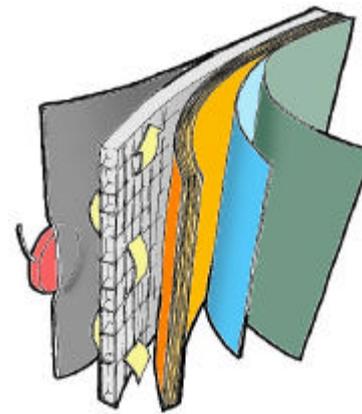
92 Lbs.

Without Electronics The Soldier Still Carries 79 Lbs!



Increased Energy Equal Decreased Weight and Increased Effectiveness

- **New Approach to the Uniform**
 - **Multiple Layers**
 - 1) **Bio Layer**
 - 2) **Environmental Layer – Heating & Cooling**
 - 3) **Outer Durability**
- **Eliminates Bulk and Weight of Uniform Components**
- **Reliable Power Supply Necessary – up to 100 Watts**
- **Cooling Increases Combat Effectiveness**
- **Increased Lethality**



Increased Power Can Reduce the Overall Soldier Weight



Summary

- Increased Energy Density Power Sources and Decreased Energy Consumption is Necessary to Reduce Weight and Increase Mission Duration in Near Term
- Addition of Power can Reduce Weight and Bulk of Uniform and Increase Combat Effectiveness in Long Term
- Objective Requirements Define Direction for Land Warrior Up-Grades
- Soldier Technology must be affordable
 - Large acquisition objective quantities

