



TACOM

Lethality, Survivability, Mobility and
Sustainment for America's Army



Objective Force Warrior Lethality 14 May 2002



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Committed to Excellence

Approved For Public Release

Soldiers on Point for the Nation Video

- Stimulate the technology community
- Visionary concept for a revolutionary soldier
- Army Chief showed it at the Winter AUSA
- 2015 time frame
- Technologies include: quantum computing, nanotechnologies, exoskeleton, robotic UAV (eagle), robotic Mule, speech recognition, vision computer pointers, integrated suit and helmet, netted fires, etc



Objective Force Warrior Program

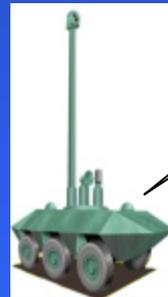
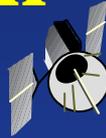
- Warrior Piece of the Objective Force
- An integrated system of systems approach enabling a team-of-teams operation
- A Combined Arms Force at the Fire Team Level
- Fielding Timeframe: FUE 2008-2012



A Revolutionary Capability For The Objective Force

Objective Force Warrior Program

- Two Lead Technology Integration contracts awarded FY 02 by Natick Soldier Center
- Technology Demonstration FY06
- Technology Readiness Level 6
- FUE FY08-12



Objective Force Warrior Lethality

Vision

- **Broader View of Battlefield**
 - Improved situational awareness
 - Target & combat identification
- **Improved Squad Performance**
 - Networked fires
 - Decision aids
 - Control fires of remote weapons
- **Increased Lethality and Capability**
 - OICW
- **Lightweight Weapon Family**
 - 30-35% lighter than legacy systems
 - Compliment highly lethal OICW in squad

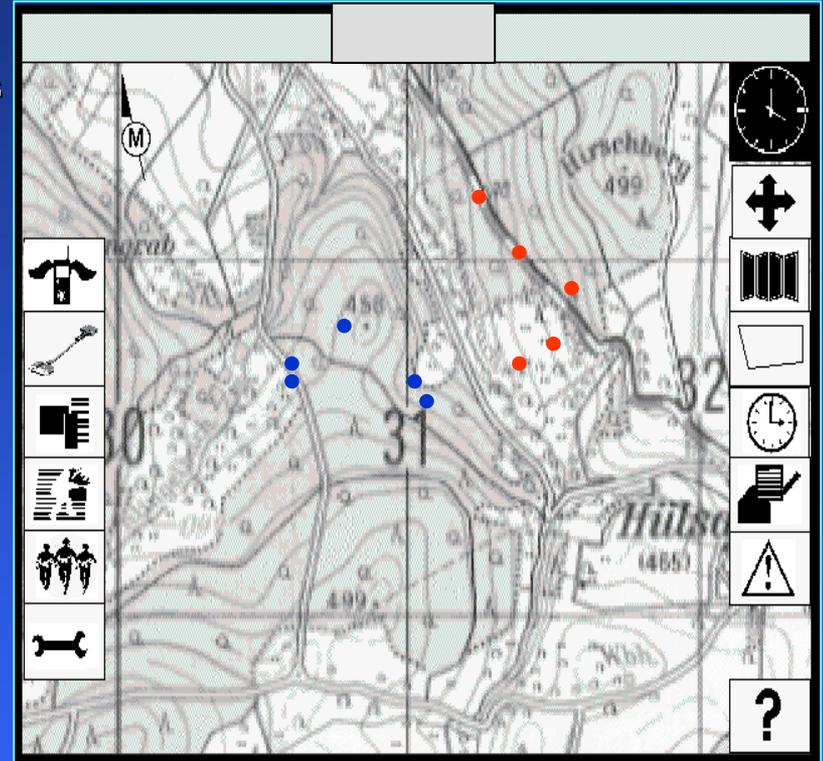


Future Lethality Improvements

Information Technology

More Target Relevant Information

- Squad level networked sensors
 - Fuzed image
 - Auto trackers
 - Multifunction steerable lasers
 - Acoustic recognition
 - Combat ID
- Detect Targets
 - Locate
 - Identify friendly or other
 - Prioritize based on range motion type or other attributes

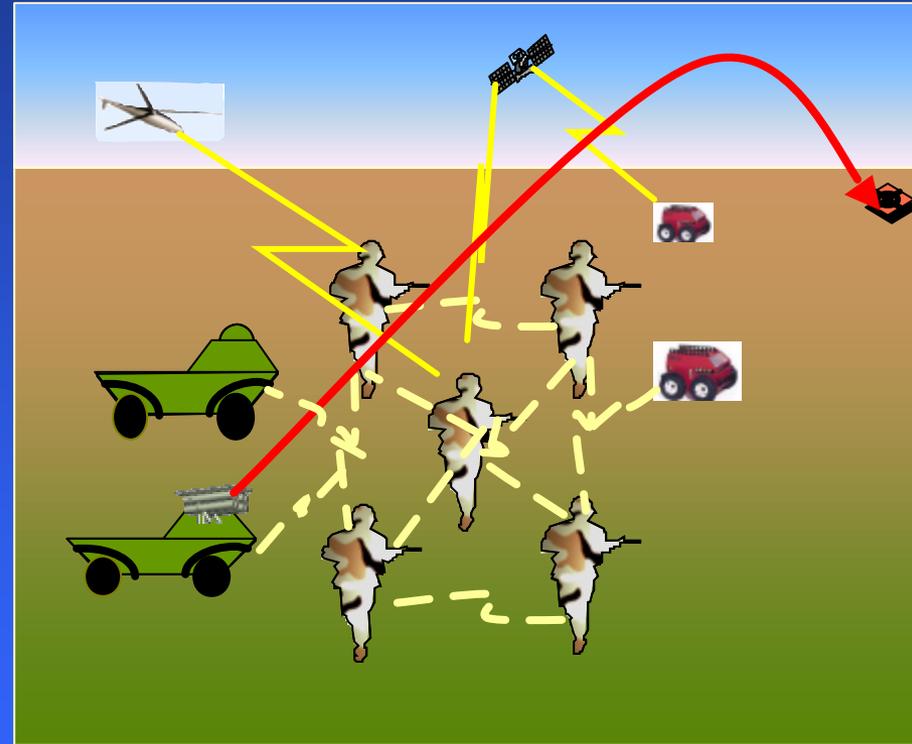


Future Lethality Improvements

Netted Fires

Squad Networked Fire Control

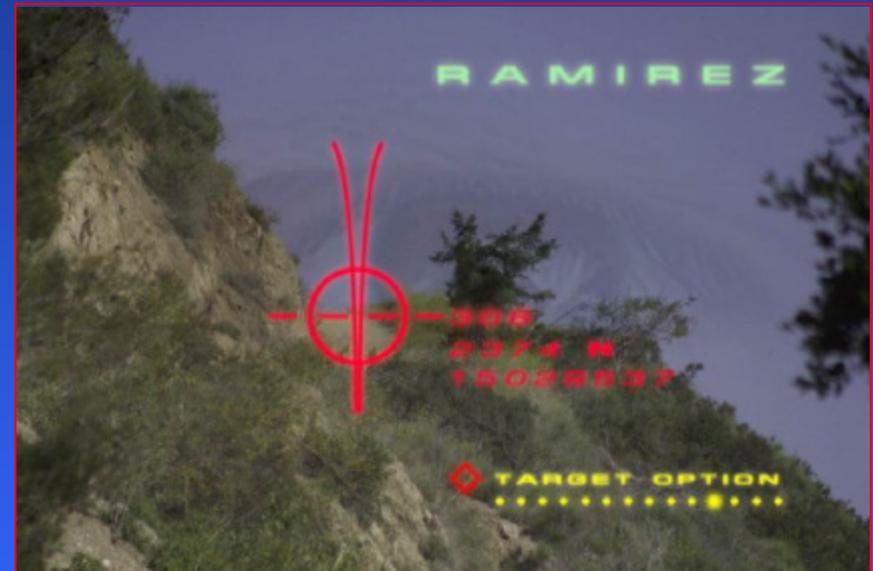
- Provides target information and aiming solution to any soldier
- Allows best shooter / best weapon to engage target
- Allows for direct control of remote or robot weapons
- Provides decision aids to squad and team leader
- Monitor ammunition usage with automated call for resupply



Future Lethality Improvements

Situational Awareness

- Soldier must keep eyes on battlefield to maintain awareness
- Reading maps and aiming a weapon cause a temporary loss of awareness
- Future warrior may be able to engage targets without shouldering a weapon
 - aiming reticle projected in normal field of view
 - like fighter pilot displays
- Advantages
 - quickness and speed of fire
 - maintain full awareness of battlefield
 - less weight on weapon



Future Lethality Improvements

More Lethal

- **Objective Individual Combat Weapon**

- laser range finders
- ballistic computers
- electronic fuzes
- airbursting munitions



- **Provides**

- ability to airburst munitions near the target
- significant increase in performance & higher probabilities of incapacitation
- ability to defeat non line of site targets
- increased stand off
- increased survivability

- **Limited Basis of Issue**

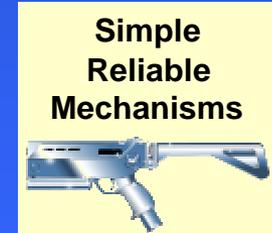
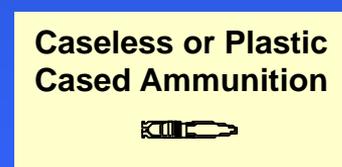
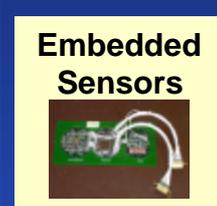
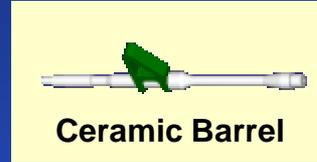
- **FUE FY07**

Future Lethality Improvements

Lighter Weight

Potential

- 30-35% weight reduction possible
- Complement OICWs in Squad
- Loaded M4 from 7.4 lbs to 5 lbs
- Loaded M249 from 23.3 lbs to 14 lbs
- 6-30 rd magazines from 6 lbs to 4lbs



Objective Force Warrior Rifle Squad Vision



Squad Leader



Distributed
Fire
Control
Network

Team Leader



OICW

Team Leader



OICW

Lightweight
Weapon

Rifleman

Automatic
Rifleman

Grenadier

Rifleman

Automatic
Rifleman

Grenadier



OICW

Lightweight
Automatic
Weapon

Lightweight
Weapon &
Grenade Launcher

OICW

Lightweight
Automatic
Weapon

Lightweight
Weapon &
Grenade Launcher

Summary

OFW Lethality

- JSSAP will work with Natick and the Lead Technology Integration contractors to define and demonstrate the Lethality of the OFW
- JSSAP will initiate an effort to demonstrate a new family of lightweight weapons
 - Carbine
 - Automatic Rifle
 - Medium Machine Gun
 - Indirect Fire Attachment
- Compliment OICW and OCSW in Rifle Squad and Weapon Squad

