

NDIA Gun and Missile Systems Conference

March 27-30, 2006



Kinetic Energy Missiles

John Palmer
KEM Advanced Systems



Net-Centric Fire Control Systems

Forced Entry Operation



Why Kinetic Energy Missiles?

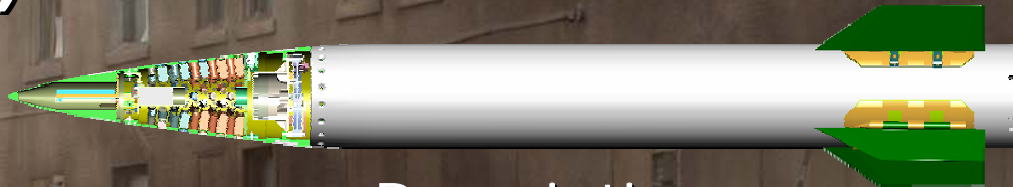


- *Defeats The Toughest, Most Sophisticated Targets (ERA, APS)*
- *Delivers Mega Energy Over Wide Range Band*
- *Destroys Multiple Target Sets*
- *Expands The Battlespace – Increased Mutual Support*
- *CE-KE Mix Resistant To Threat Countermeasures*



Battlefield Capability To Destroy Enemy Forces At Longer Ranges While Delivering Devastating Target Effects

Compact Kinetic Energy Missile (CKEM)



Description

- **<60 Inches Long <100 Pounds**
- **Novel Lethality System**
- **Dual Pulse, Minimum Smoke Solid Rocket Motor**
- **IMU and Control Thruster Guidance**

Schedule

2003	2004	2005	2006	2007	2008	2009	2010	2011
------	------	------	------	------	------	------	------	------

TRL 5/6

CTF



CTF-1 Oct '03
WSMR

Downselect

ATD 36 Mo

24 Mo Ext

5-6 Flight Tests



CTF-2 Oct '04
Eglin AFB

SDD
3 Yrs

Production

Capabilities

- **Extended Range (5-8 km)**
- **RF Uplink for Existing and Future Comm Links**
- **Assured Overmatch**
- **Hit-to-Kill**

Spiral Development of Legacy Technology

Net Centric Weapon System



**Situational Awareness
(Targeting and Fratricide Avoidance)**

**Battle Command
Management
(Platoon, Company
and Battalion)**

**Tactical Communication
(Horizontal and Vertical)**

2d GEN FLIR



SINGARS/JTRS



Position/Navigation System



Commander's Position



Inertial Reference Unit



Remote Display Unit



Distance Measurement Unit



**Force XXI Battle
Command Brigade and
Below (FBCB2)**

Digital Connectivity

Fire Control System Attributes



- ***Fills Current Force Capability Gap Areas***

- ***Network Battle Command***
- ***Responsive, Precision Fires***
- ***Joint Interoperability***
- ***Lethality Overmatch***

- ***Embedded Capabilities:***

- ***Second Generation FLIR***
- ***Multi Target Auto Tracking***
- ***Near Fire And Forget Target Engagements***
- ***Aim Point Adjust***
- ***Auto Scan***
- ***Target Reference Pointing***
- ***DTV Wireless Link And Remote Operation Hardware Demonstrated***

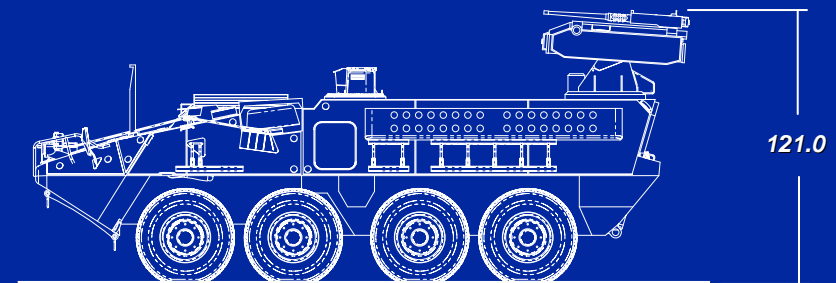


Multiple Platform Capability

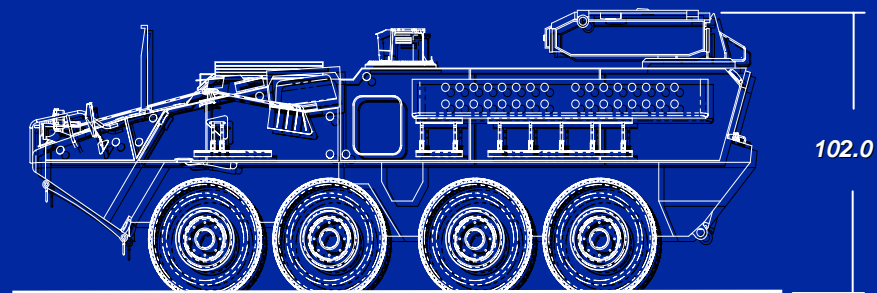


Stryker Weapons System Concept

- *Six Ready To Fire Missiles*
- *High Rate Of Fire*
- *3 Man Crew*
- *Robust Engagement Envelope*
- *Minimum Chassis Modifications*
- *Weapon Head Moves In Azimuth And Elevation*
- *Folds And Stows For C-130 Transport*



Weapon Platform Deployed For Engagement



Weapon Platform Stowed For C130 Transport

Summary



- ***Fills Current Force Capability Gaps***
 - ***Network Battle Command***
 - ***Responsive, Networked, Precision Fires***
 - ***Joint Interoperability***
 - ***Lethality Overmatch***
 - ***Modular, Tailorable Force***
 - ***Soldier/Platform Protection***



The Future Is Now!



John Palmer

(972) 603-1251

Lockheed Martin Missiles and Fire Control

john.a.palmer@lmco.com

