Non-Line of Sight Launch System
Program Update

Precision Strike Association
Summer PEO Forum

7 Jul 04

Rod Summers
Director,
NLOS-LS Task Force
(256) 313-1049
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Terminology

• “NetFires” = Past DARPA Technology Demonstration Program

• Non Line of Sight Launch Systems = Current Army Programs
  • Annex in Future Combat System (FCS) Operational Requirements Document (ORD)

• “Networked Fires” = Term Used to Refer to Combination of FCS Weapons and Supporting C4ISR
Approved for Public Release, Distribution Unlimited TACOM 24 March 2004
• Provide responsive, **networked, extended-range targeting** and precision attack of armored, lightly armored and other stationary and moving targets during day/night and near all weather conditions

• Be highly **deployable and platform independent**
Loiter Attack Missile (LAM) Technical Requirements

Data Link
- JTRS Cluster V
- 2-Way – Op in loop
- Software Programmable

Jet Engine
- Low Cost Turbojet

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<th>Requirement</th>
<th>ORD Threshold</th>
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<td>Maximum Range (INF Treaty)</td>
<td>&lt; 480 km</td>
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<tr>
<td>Minimum Range</td>
<td>500m</td>
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<td>Typical Range with Loiter (km)</td>
<td>70km w/ 30 min loiter</td>
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<td>Target Set</td>
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<td>Updates in Flight</td>
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<td>High Value Targets (TEL/MRL)</td>
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LAM Provides a Dedicated, Loitering Long Range Recon and Discriminating Point Kill Capability
Precision Attack Missile (PAM) Technical Requirements

GPS/INS Navigation System

Multi-mode Seeker
- Semi-Active Laser (SAL)
- Un-Cooled Imaging Infra Red (UCIIR)

Automatic Target Acquisition

Data Link
- JTRS Cluster V
- 2-Way – Op in loop
- Software Programmable

Requirement | ORD Threshold
--- | ---
Maximum Range | 40 km
Minimum Range | 500m
Target Set | High Value Targets (Armor)
Updates in Flight | Two-Way Comms w/ FCS Network

PAM Provides A 40km Precision Kill Capability Against Moving Armored Targets Using Laser Guidance or Automatic Target Recognition
**Networked Communications For NLOS-LS STO**

**Purpose:**
Develop & test communications networking for NLOS-LS missiles.

**AMRDEC Products:**
- Soldier Radio Waveform prototype (Mode 3)
- Missile Network Waveform prototype (risk mitigation)
- Two form-factored, prototype JTRS missile radios
- Test results on both waveforms and both radios
- NLOS-LS Networking Requirements

**Status:**
- Test Operations being conducted in TN
- Runs for record begin next month

**Captive Flight, Beyond Line-of-Sight Comms Test**
- Test Area (20 x 60 km)
- Extends Up and Over the Cumberland Ridge
- Control Node Located at Fayetteville, TN Airport
  - Monitors all Comms Traffic in the 20-node Test
  - Performs Analysis of Network Performance