2\textsuperscript{nd} Cavalry Regiment Lethality Upgrade Update to NDIA

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Agenda

• PM SBCT Organization
• Recent Key Events
• Background
• Design Overview
• Program Schedule
• Upcoming Key Events
• What Is Next For Stryker Lethality
Recent Key Events

MAR 15 – 2nd Cavalry Regiment Submits an Operational Needs Statement for increased lethality capability against light and medium armored threats

JUL 15 – HQDA G3 Issues a Directed Requirement for Increased Stryker Lethality

JUL 15 – AAE holds an ASARC; generates an ADM granting PEO GCS authority to proceed with a lethality upgrade to the Stryker

SEP 15 – SES Work Directive to GDLS initiates development

JAN 16 – NRE UCA awarded to GDLS

JAN 16 – GDLS selects a Kongsberg turret with XM813 cannon through competition

MAR 16 – System PDR
Background

• Urgent ONS effort addresses both the unit’s and MACOM’s operational needs
  – 30 mm cannon in unmanned / remote turret
  – Uses 30 x 173mm rounds already in US inventory
  – Stryker ICV Flat Bottom Hull (FBH) chassis with 5.5 suspension upgrade
  – MUST still carry a 9-man squad
  – Deliver single BCT in FY18

• Acquisition Strategy
  – Engineering Change Proposal to integrate 30mm on FBH Stryker ICVs
  – Will field under Urgent Materiel Release
  – OEM conducted turret competition; weighted mature / off the shelf technology
  – Leverage OEM expertise and Anniston Army Depot experience with other Stryker efforts
  – 91 total vehicles to be built
    o 8 prototypes for test
    o 83 platforms to be fielded to 2CR, including 2 Operational Readiness Floats
Design Overview
Design Overview (cont)

Lethality Upgrade
- Kongsberg MCT-30 Weapon System
- Unmanned, stabilized turret operated remotely from ICV CMDR station
- XM813 primary weapon
- M240 coax weapon
- M6 smoke launchers

5.5 Mobility System Upgrade
- Upgrade Gen 3.5 → 5.5
- Driveline, Suspension, Brakes, Steering
- Wider 365/85R20 XZL tires and rims for stability and soft soil mobility

Commander’s Station
- Integration of User interface for MCT-30 Weapon System
  - System Panel
  - Fire Control Unit
  - Control Grip
  - Safety Switch

Hull Riser
- Weapon System mechanical interfaces
- Armor & Spall Liner
- Weapon System Access Hatch
- Squad Leader’s Observation Hatch
- Air Guard Hatches
- Commander’s Periscopes

ICV Hull Modifications
- Roof Modifications (cutout)
- 5.5 Mobility System interfaces

Stowage
- Re-location of ICV rooftop stowage items
- Addition of 30mm ammo and gun tools/equipment
Design Overview (cont)

- **Unmanned, stabilized turret operated remotely from ICV CMDR station**
  - Similar User interface to current Stryker RWS
  - Combat override capability
  - Degraded mode capabilities (battery backup and manual operation)
- **XM-813 primary weapon**
  - Fires complete family of 30x173mm ammunition, including ability to program and fire Mk310 Air Burst Munition
  - Linkless, dual feed ammo handling w/ first round select capability
  - 156 ready rounds of 30mm (78 / side)
  - Single shot, and burst fire to 200 rds/min
  - Integral mount, dual recoil
- **M240 coax weapon**
  - 400 ready rounds of 7.62
- **M6 smoke launchers**

*Precision, Medium Caliber Direct-Fire Weapon System; Ensures Effective Mounted and Dismounted Combined Arms Operations*
ONS Program Schedule

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- Competition
- Design
- Early Order Material (Prototype)
- Prototype Build
- Test
- Early Order Material (Production)
- Production
- Fielding
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ONS Program Schedule - Savings & Risk

- Concurrent Design, EOM & Prototype Build
  - Risk that redesign & EOM modifications delay production

- Concurrent Test and Production
  - Risk that redesign from test requires retrofit or delays fielding

Concurrency Risks Accepted to Accelerate Schedule
Upcoming Key Events

MAY 16 – System CDR
DEC 16 – First Prototype Delivered
APR 17 – Final Assembly Decision
JUL 17 – User Excursion with 2CR (APG)
OCT 17 – Safety Confirmation / CLR
JAN 18 – Early User Test & Evaluation with 2CR (Europe)
MAR 18 – Urgent Material Release
SEP 18 – Fielding Complete
What Is Next For Stryker Lethality

• Stryker was initially fielded as an interim capability; mission equipment packages (MEPs) are managed by the platform PM
• Over time, program managers for these MEPs have continued to improve their systems
• Stryker lethality improvements will focus on fleet-wide MEP improvement
• Activities that will have a significant influence on Stryker lethality improvements include:
  - Lessons learned from 2CR ONS effort
  - Information gleaned from PM SBCT market surveys
  - Insights from ARDEC Medium Caliber Armament System (MCAS) CRADA
Questions?