“Taliban Resupply Vehicle” To “Terminator”

Progress In Armor, Armament, Situational Awareness, Target Designation and Illumination & The Proposed Missions They Support

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THE FOLLOWING IS A PUBLIC SERVICE ANNOUNCEMENT ON THE CATCHY TITLE:

We are here to celebrate two legends in the field of modern robotics;

One, the Urban Legend that any U.S. Armed Robotic Vehicle was ever captured by the enemy, carried off and it’s weapons used by the Taliban against us. It simply never happened and in lieu of argument we have foil lined baseball caps available in the back for those who think it did... get ‘em while they’re hot.

And...

Two, the Screen Legend of James Cameron’s T-1000 Terminator...the goal of every robotic designer; a strong, autonomous, self powered and powerful computer capable of seamlessly blending in with humans. Of course, the completely ruthless, evil drone programming in the original was a problem, fortunately almost completely worked out by screenwriters prior to “T2”.

Introduction By:

M. David Ahmad, Chief
US Army PEO Future Weapons

Presented By:

OIC, PM Individual Weapons

Topic:

Development Of Dedicated Robotic Weapons For The Future Force: Beyond Adapted Infantry Weapons
Clockwise From Top: German (WW-II) Sprengpanzer “Goliath” Wire Guided Robotic Bomb, Japanese (1930) Radio Controlled Tank, Soviet Union (1922) Radio Controlled Tank.
Post War – September, 11, 2001, Experimental & Engineering Vehicles:

Clockwise From Top: Life Magazine Photo USAF Tele-Operated Engineering Vehicle (1960s), US Army M-60 Based Panther, FMC M-113 Based Autonomous Test Bed Vehicle
Modern Use Of Combat Robots, 2001 Onward:

Future Combat Robots; Potential Tele-Operated Vehicles Based On Current Types

Clockwise From Top Left: GD M-1 Abrams A2 SEP, German Leopard II, FMC Experimental M-113 Assault Gun, FMC M-113 Gavin Up Armored RWS, US Army FCS 105mm (Stryker 105mm), Husky Engineering Vehicle
Future Combat Robots; Tele-Operated & Autonomous Vehicles

Clockwise From Top Left: US Army Crusher Vehicle, UK Digger Mine Flail, USN SPAWAR FIRRE, Australian IMDV, Robotics Technology Center Vehicles, DARPA AVRL Scout Vehicle.
Future Combat Robots; Tele-Operated & Autonomous Vehicles

Clockwise From Top Left: DARPA Vision; Teamwork Between Control Platform, UAS, Mobile Ground Detection Sensors, Reconnaissance Vehicles, And Unmanned Shooter Platforms.
Future Combat Robots, New Missions: Improved Explosive Ordnance Disposal

Future Combat Robots; New Missions: CQB & Delaying Action

Future Combat Robots; New Missions: Spec Ops, PGM Targeting & Ambush

Future Combat Robots; New Missions: Supply, Reconnaissance & Fire Support

Future Combat Robots; Robotic Adaptability To Aircraft Weapons

Clockwise From Top Left: Self Contained, Externally Powered Armament: AH-1 Cobra 40mm/M-134, Dillon Aero M-134, Mauser 27mm Aircraft Cannon, FN Rocket & HMG Pod, GE SUU-11 20mm Cannon Pod.
Future Combat Robots; Near Term Offensive & Defensive Armament

Clockwise From Top Left: ATK 30mm, 7.62 NATO Chain Guns, Meggitt M-1 120mm Autoloader, GE GAU-8, Self Powered Rheinmetall 50, Concept Multi-Weapon Remote Control Turret.
Future Combat Robots; Near Term Offensive & Defensive Armament

Clockwise From Top Left: Raytheon Ground Launched Hellfire, ROK 70mm MRL, Soviet Flame Rocket Tank, South Korean 70mm MRL, Hughes FOG-M, ATK 70mm Hydra Rockets, ATK APKWS, IMI Mini-Spike AP-ATGM
Future Combat Robots; Near Term Offensive & Defensive Armament

Clockwise From Top Left: Royal Arms Disruptor / Breacher / NL / AP Projectors, MetalStorm 40mm, Array, ATK Spyder AGL, ATK EFP Off Route Mine, Dynamit- Nobel Modern Claymore, TASER Multiple Projector, Italian Anti-Personnel Mine, US Flamethrower, Lasers: THOR Mine Destruction, BE Meyers GLARE, Coherent CO2 Modules.
Future Combat Robots; Near Term Frontal Arc & Spaced Armor Concepts

Top: Krauss-Maffei Leopard 2 Frontal Arc, Spaced Armor Diagram. Bottom: MTL IMPAS Lightweight Armor
Future Combat Robots; Near Term Deployment Concepts

Manually Deployed & Stowed: VS. Automatic Offloading & Retrieval:

US Army, DoD Photos
Future Combat Robots; Near Term Sensors & Situational Awareness

Clockwise From Top Left: CDL Mini-1553 Node, 1553B Harness, Kopin Golden-I Headset, Dual Core PC View, Kopin Golden-I Monacle, Kopin Golden-i VR Goggles, DYTRAN Sealed Pressure Transducer (Microphone), DYTRAN Miniature Tri-Axial Accelerometer, FLiR TAU SWIR Miniature Thermal Camera, FLiR Quark Ultra-Miniature Thermal Camera, Sony Exmor High Resolution 14.7mP Cell Phone Camera With 5x Optical & 10x Digital Zoom.
Future Combat Robots; Futuristic Concepts

Conclusion:

• The Future Is Coming…

• There Will Be Combat Robots In It…

• Let’s Make Sure We Have Them…

-HK