Science and Technology Development
2018
U.S. Central Command Tech Focus

• We focus on the JOINT solution that has the potential to satisfy a JOINT validated need

• Separate from the many technology needs of our customer(s) those technology needs which:
  – Do not have a readily available solution
  – For high-impact needs there is insufficient activity pursuing a solution

• Seek out game-changing technologies which our customer(s) don’t know they need
Some technology areas we “pursue”:

- Detection of CBRNE at tactically significant distances; with emphasis on the “E”
- Pre-shot counter-sniper, counter-mortar, counter-RPG technologies; with emphasis on automated systems
- Technologies which enable the transfer of information more securely, more quickly, to a wider set of users, to include the warfighter when it makes sense, with less bandwidth and dedicated support resources, e.g.:
  - Multi-level Security over single architectures
  - Bandwidth compression / reduction techniques
  - Data reduction [data=>info=>knowledge=>understanding=>wisdom]
- Through automation, remote action, new and novel techniques, technologies which reduce risk and / or stress on the force and / or improve the efficiency and effectiveness of our action(s)
- Technologies which allow for greater persistence over the battlespace with fewer platforms; employing improved sensor technology providing greater fidelity of information

DOTMLPF – Doctrine, Organization, Training, Material, Leadership and Education, Personnel and Facilities
Thematic areas of concern
(not in priority order)

• A2AD solutions
• Detect / Defeat:
  – IED initiators / initiator systems
  – Buried / concealed IEDs
  – Production and assembly of IEDs
• HME production standoff detection
• Culvert access denial / alerting
• Persistence in surveillance
• Biometrics (Identity dominance for FP/access)
• Non-lethal vehicle / vessel stop
• Medical
• Reduce stress on the force:
  – Force Protection requirements
  – Increased automation
• Anti-swarm lethal / non-lethal
• Enable Partner Support
• Predictive analysis techniques
• Tunnel detection / defeat
• Holding all targets at risk
• Messaging / counter-Messaging
• Voice to Voice Translation (Urdu, Pashtu, Dari, Farsi)
• Mine Warfare (offensive/defensive)
• IAMD overmatch solutions
• C4ISR systems:
  – Processing, exploitation & dissemination
  – Multi-level security
  – Cross domain solutions
  – Information access to tactical edge via MIL Comms, Cellular & WiFi
• Tagging, Tracking, and Locating (TTL)
• Denying non-state actors state-like functions
• Energy & Power efficiencies
• Scalable non-lethal / lethal effects
  – Directed Energy
  – Kinetics
• True SA for Blue … Fused Red
• Sustaining the force – reduced size, weight, amount, and retrograde
• Any sensor any shooter
• Cyber Warfare Defense
• Detect, track, defeat UAS (Grp 1&2)
Points of Contact

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Discovery & Integration