



TRADOC Capability Manager Stryker Brigade Combat Team



Industry Day

2018

Break Out

Iron Works Rm 104

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Capabilities

Make Mission Command Real

- To improve leader's ability to execute tasks, the SBCT needs improved on-the-move communications that are secure, timely and available when needed.

Conduct Cross Domain Maneuver

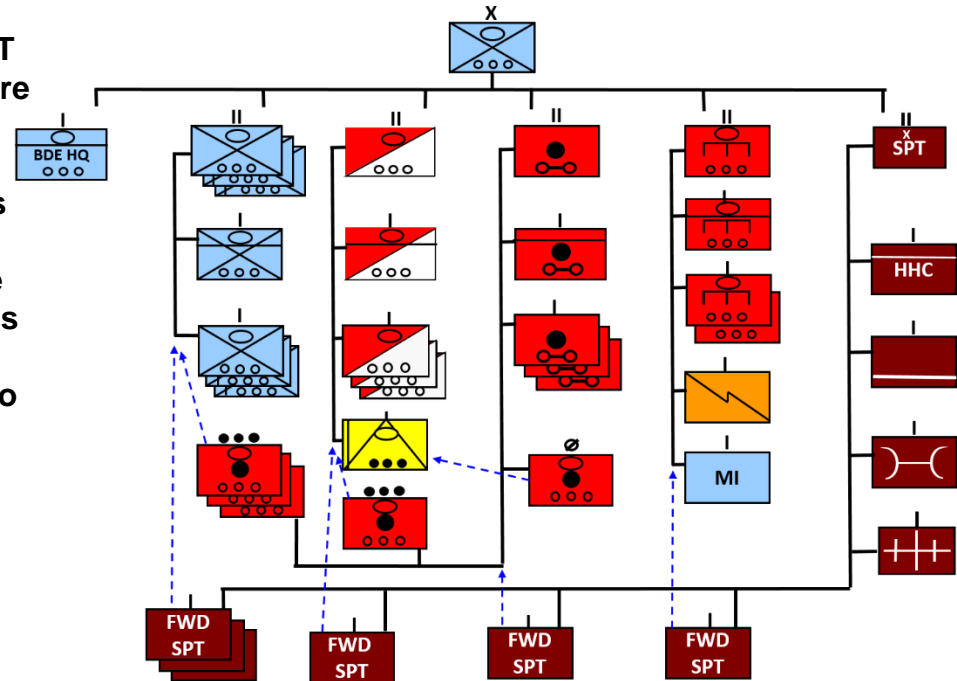
- To operate in the land, air, cyber, and space, domains Commanders will use an increased mix of ground robotics and UAS's that are echeloned to achieve the right payload, distance, and operating characteristics to produce the best effects for each level.
- Threat ground and aerial systems will be countered to the lowest level using multi-domain solutions to include EMS and precision strike capabilities.
- Lethality improvements and networked with better range and accuracy that reduces sensor to shooter engagement times.
- Commanders will have increased ability to provide movement and maneuver through obstacles and ensure assured mobility across the depth and breadth of the SBCT Battalions.

Integrate Reconnaissance & Security Operations

- Suite of sensors available to all echelons employed through proliferated autonomous capabilities on the ground and in the air.

Operate Semi Independently

- Maintenance and sustainment activities become less burdensome, more precise with reduced response times with delivery to the point of need.
- Airspace management automation provides SA and clearance quickly with increased numbers of unmanned aircraft and sensors.





Needs for the Future

Concepts

Six Army Modernization Priorities

- Long Range Precision Fires
- Next Generation Combat Vehicle
- Future Vertical Lift
- Network Command, Control, Communication and Intelligence
- Air and Missile Defense
- Soldier Lethality

Critical Enabling Technologies

- Directed Energy and Energetics
- Power Generation and Management
- Advanced Armor/material systems
- Vehicle protection systems
- Maneuver robotics and autonomous systems

Technology Development

- Stryker Vehicle using hybrid/electric drive
- Sensors providing assured communication, and PNT
- Vehicle integrated aerial threat defeat using the electromagnetic spectrum and directed energy
- vertical take off and landing UAS w/payloads
- directed energy that meets SWAP for lower echelon use
- precision fires for loitering munitions
- lighter weight stronger armor solutions

Capability Benefits

- Power Generation – silent watch, sustainment reduction
- Sensors - operate in a PNT denied environment, proliferate EW signature, needle in a stack of needles
- SHORAD/Counter UAS – DRI A/P defeat and protection
- VTOL – Optional payloads, eliminate the need for runway take off/recovery
- DE - Threat defeat without ammunition resupply
- reduced collateral damage, precision targeting

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Critical Enabling Technologies Related to the SBCT



1. Directed Energy and Energetics
 - Detect/identify/DEFEAT aerial threats
2. Power Generation and Management
 - Capabilities that reduce power consumption/redundant power solutions using hybrid electric
3. Advanced Armor/material systems
 - Improved ballistic and fragmentation protection for mounted Soldiers
 - Lighter weight
4. Vehicle protection systems
 - Signature management/camouflage/obscurants/EMS clutter
 - Pre-shot detection/Laser warning receiver
 - Hostile fire detection/Active protection through hard kill and soft kill
5. Maneuver robotics and autonomous systems
 - UGS/UAS/SUAS/Universal Controller
 - Improved gap crossing/breaching capabilities (ESV)