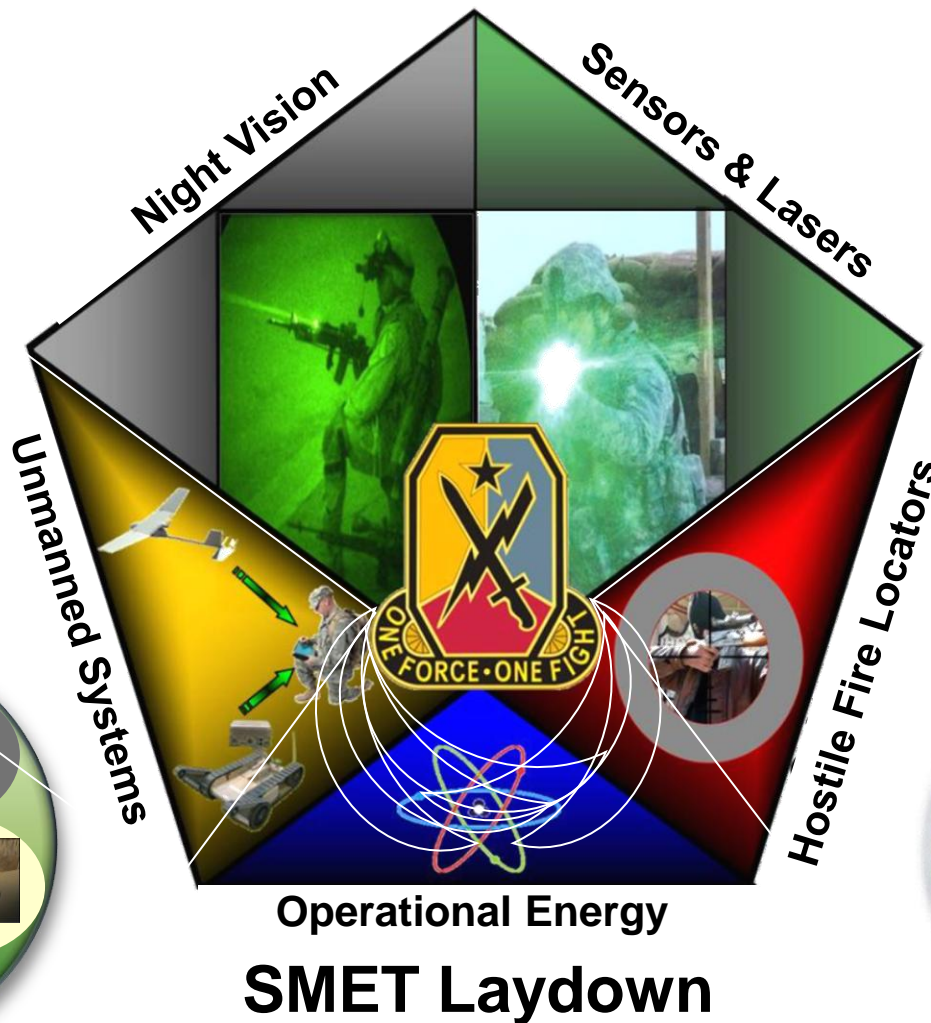




Electronics and Special Developments Branch (ESDB)



Capabilities Development & Integration Directorate



Maintain the battlefield primacy of our Soldiers and the formations in which they fight!



Squad Multipurpose Equipment Transport (SMET)



SMET Candidate Systems



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*Possible Solutions



User/Soldier Needs



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- The Squad Multipurpose Equipment Transport (SMET) Increment 1 provides a near term solution to two Army Warfighting Challenges (AWFCs)
 - Conduct Joint Expeditionary Maneuver and
 - Entry Operations and Conduct Joint Combined Arms Maneuver
- The SMET provides the Squad/Platoon/Company an organic unmanned capability to extend the time and area the small unit may operate in without support of the parent unit
- The SMET provides the capability for the small unit to sustain itself for up to 72 hours without the need for resupply
- The SMET also provides the capability to generate power at the small unit and to recharge batteries which decreases the required weight dismounted Warfighters need to carry to conduct extended operations
- The SMET provides the capability to carry additional munitions and supplies when conducting Joint Expeditionary Maneuver and Entry operations

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Concept of Operations Summary



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Squad Multipurpose Equipment Transport (S-MET) OV-1

Inside the Assembly Area, the S-MET can be either controlled directly with the Operator Control Unit (OCU) or move autonomously to pre-designated locations in support of resupply or consolidation and reorganization.

Autonomous Way Point Navigation

GPS

During a Cordon and Search mission, the S-MET is pre-positioned and then called forward in support of the squad as supplies and ammunition are needed to complete the mission.

Assembly Area

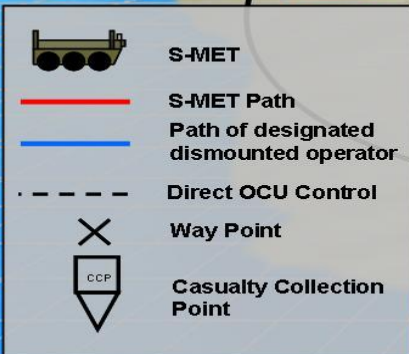
Tele-Operated Navigation



S-MET used as non-standard CASEVAC to transport litter patient to CCP

Semi-Autonomous Leader-Follower Navigation

COP



The S-MET increases the Soldier's combat effectiveness by reducing the amount of weight the Soldier is carrying by providing the maneuver squad with an autonomous, semi-autonomous, and tele-operated unmanned capability which will offload the Soldier's Approach March Load, Sustainment Load, ammunition or other equipment.

S-MET follows designated dismounted operator in semi-autonomous mode, with ammunition, sustainment load and supplies as needed supporting the establishment of a squad Combat Outpost (COP).



One Concept of Employment



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- An IBCT has executed a Forcible Entry Exercise (FEE) and secured an airfield and the surrounding terrain. Companies have established defensive positions around the airfield. The airfield was damaged during the initial operation and the units are in need of resupply of ammunition, barrier materials, and sustainment items.
- The IBCT's SMET platforms were pre-loaded before execution of the FEE. The fully loaded SMET platforms are delivered to the airfield either by air drop or by CH-47/UH-60.
- The SMET platforms are met on the airfield by representatives of each battalion and moved to the locations of Companies, platoons, and squads requiring resupply. The platforms are dispatched using way point navigation, leader follower, or tele-operation to the location of the receiving units.
- The SMET may be loaded with sustainment supplies to support a Squad for 72 hours. As squads are sent on reconnaissance or other missions, or are directed to extend the defensive area around the airfield, the SMET platforms accompany the Squads on their missions. The SMET enables the Squads to conduct continuous operations for 72 hours with minimum or no resupply.

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Experiments/Assessments



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- Army Expeditionary Warrior Experiment (AEWE)
- Maneuver Battle Lab Military Utility Assessment of the Squad Mission Support System 2009
- Project Workhorse DOTMLPF Assessment 2012
- MCoE Robotics Limited Demonstration 2013
- Network Integration Exercise/Army Warfighter Assessment 2015
- PACMAN Assessment
 - Scheduled for July 2016 in HI

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SMET CDD



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- Army Procurement Objective
 - Increment 1 Large and Small Variants
 - Limited number of BCTs for Increment 1
 - Engineer formations with Payloads in Increment 1
 - Additional payloads for future Increments
- Generate Power for the Small Unit
 - 5kw @ Threshold
 - 20kw @ Objective
- Recharge Batteries
 - All in the Infantry Company

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MCoE ESDB POCs



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