



Adaptive Red Team (ART) / Technical Support and Operational Analysis

16-1 Operations Overview

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Bottom Line Up Front

TSOA 16-1 will work to assess a variety of technologies in a complex urban environment with no disturbance to the local populace, in order to provide better equipment to soldiers and law enforcement officers.



A soldier monitors data in an Experimental Operation Center (EOC). The transmittal of data to this operations center helps commanders develop more situational awareness.





Why work in a city?

Mega cities will complicate and greatly challenge Army urban combat missions in the 2030-2040 timeframe. By 2030 three out of five persons are forecast to reside in cities. This migration will bring competing interests into conflict and raise the chances for urban combat operations. Urban combat is the great leveler.

-David Shunk, Small Wars Journal 2014.





Urban Challenges



VS.



Military urban training sites offer great tactical training venues, but lack the structural complexity of urban environments, especially war torn environments. For Technical Support Operational Analysis (TSOA) 16-1 the focus will be primarily on how technology will function in a more complex urban environment. TSOA 16-1 is attempting to use some of the existing urban environments inside the US to better understand how technology will perform in an urban setting.





Clutter and Complexity



Dhaka, Bangladesh. Population 14.4 million.

Something as simple as using a walkie-talkie can become incredibly difficult in such a dense urban area.



Scenarios



- **UMC conducts scenario based experimentation in order to use technologies in a way that mimics the real world. These scenarios are flexible, and do not require soldiers to be in uniform or conduct overt military training in public.**
- **An ideal area would allow UMC personnel to place sensors in an area, see if they can detect an opposing force, and then deploy a US element to respond to the opposing force.**
- **However scenarios could be as simple as putting a sensor in a stairwell and then walking by it to see if it can transmit back to a operations center.**





Passive Scenarios

- **Passive scenarios will incorporate soldiers and agents in civilian clothing placing sensors in areas in a variety of areas, often out of view of the public. Red Cell activity will simply be limited to activating or circumventing sensors.**
 - **Example: In Iraq insurgents placed improvised explosive devices below bridges. In our passive scenario we would place sensors to monitor an underpass. Red Cell would then come by on foot and try and trip the sensors, or circumvent the sensors. After a couple of attempts the scenario would end, and data would be collected.**



A small passive infrared sensor is concealed by a soldier. These unattended ground sensors can act as early warning devices for soldiers or agents.





Passive Scenarios



Notional Scenario	Location
Area Denial	Underpass
Area Denial	Culvert
Unauthorized Access	Parking Garage – subterranean
Unauthorized Access	Parking Garage – above ground
Unauthorized Access	Fence
Unauthorized Access	Rooftop
Unauthorized Access	Basement
Unauthorized Access	Alleyway
Blue Force Tracking	Provo
Call For Support	Provo
Remote Power	Hotel
Situational Awareness	Hotel





Dynamic Scenarios

- **Dynamic scenarios will seek to re-create hostile situations that may be encountered by both our military and law enforcement organizations. These scenarios may involve blank fire and the use of distraction devices and will be conducted in a controlled environment.**
 - **Example: Responding to a active shooter in an urban environment.**



Customs and Border protection personnel detain personnel during a simulated active shooter incident during TSOA 15-3.





Dynamic Scenarios



Notional Scenario	Location
Active Shooter	TBD
Bomb Threat	TBD
Hostage Situation	TBD
Unauthorized Access to a restricted site	TBD





Desired End state

UMC conducts realistic scenario based experimentation in a diverse and unique urban environment, providing critical feedback to 25 different technologies that will help protect American lives.



Soldiers, DOD Civilians, Field Service Representatives, and UMC staff at the conclusion of a TSOA event in California.

