



Project Manager Night Vision/ Reconnaissance, Surveillance and Target Acquisition (PM NV/RSTA)

Contract Opportunities

**Mr. John Gresham
Deputy Project Manager, NV/RSTA**

**(703) 704-3444
john.gresham@nvl.army.mil**

Report Documentation Page

Report Date 06MAY2002	Report Type N/A	Dates Covered (from... to) 06MAY2002 - 07MAY2002
Title and Subtitle Project Manager Night Vision/Reconnaissance, Surveillance and Target Acquisition (PM NV/RSTA)	Contract Number	
	Grant Number	
	Program Element Number	
Author(s) Gresham, John	Project Number	
	Task Number	
	Work Unit Number	
Performing Organization Name(s) and Address(es) NV/RSTA	Performing Organization Report Number	
Sponsoring/Monitoring Agency Name(s) and Address(es) Department of the Army HQ U.S. Army Communications-Electronics Command and Fort Monmouth Fort Monmouth, NJ 07703-5000	Sponsor/Monitor's Acronym(s)	
	Sponsor/Monitor's Report Number(s)	
Distribution/Availability Statement Approved for public release, distribution unlimited		
Supplementary Notes See also ADM001406, non-print version on CD-ROM. Conference briefings from Advance Planning Briefing for Industry(APBI) held May 6-7, 2002., The original document contains color images.		
Abstract		
Subject Terms		
Report Classification unclassified	Classification of this page unclassified	
Classification of Abstract unclassified	Limitation of Abstract UU	
Number of Pages 21		



PM NV/RSTA develops, acquires, and provides superior, affordable day/night vision, multi-sensor and artillery locating radar systems to the American warfighter.

PM NV/RSTA Organization



**Thermal
Systems for
Vehicles**

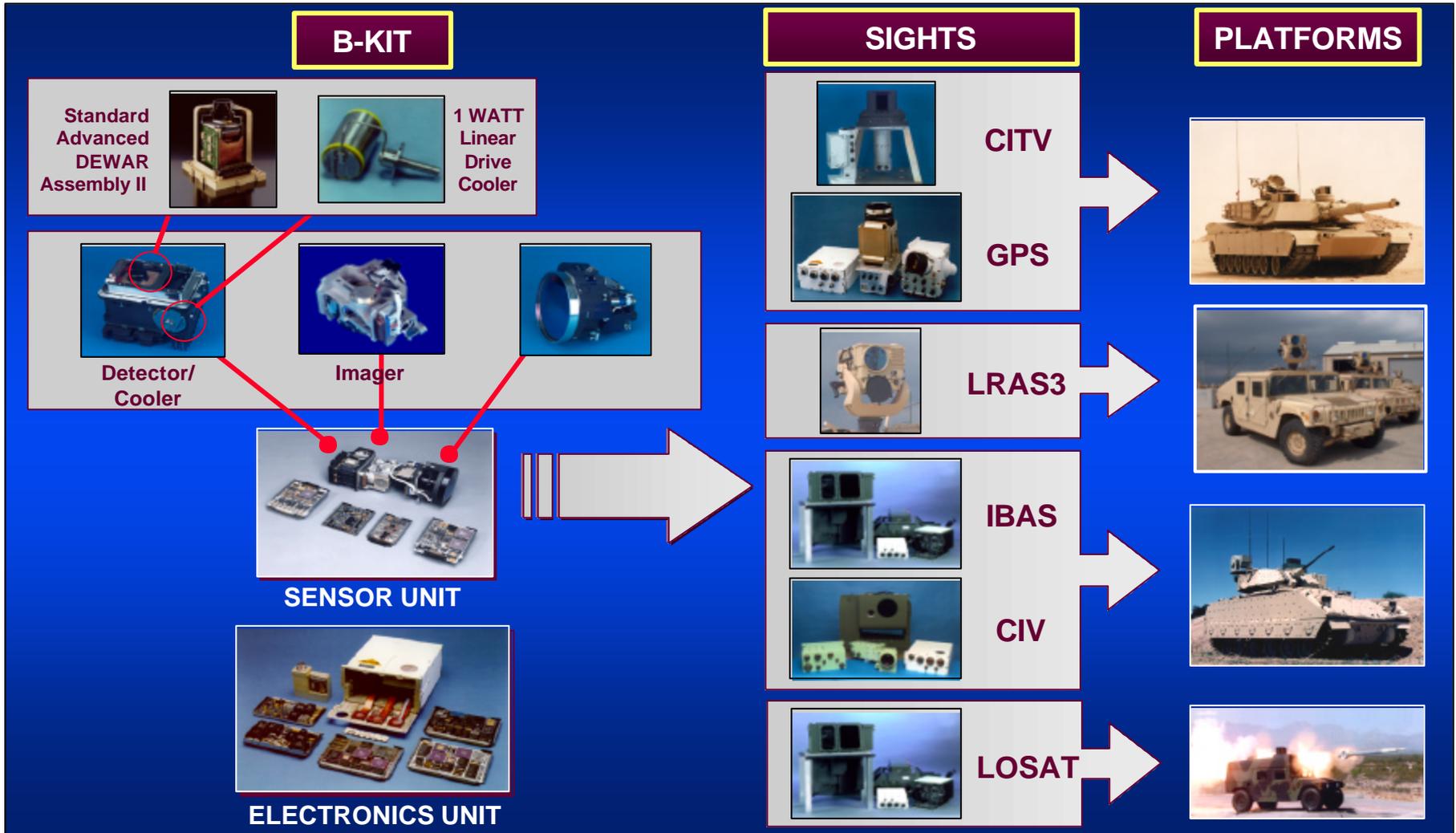


**Robotic and
Unmanned
Sensors**



**Artillery
Locating Radar**

Thermal System for Vehicles



Horizontal Technology Integration Second Gen FLIR



**Driver's Vision Enhancer
(DVE), AN/VAS-5**



**Long Range Advanced
Scout Surveillance System (LRAS3)**



**Lightweight Laser Designator
Rangefinder (LLDR)**

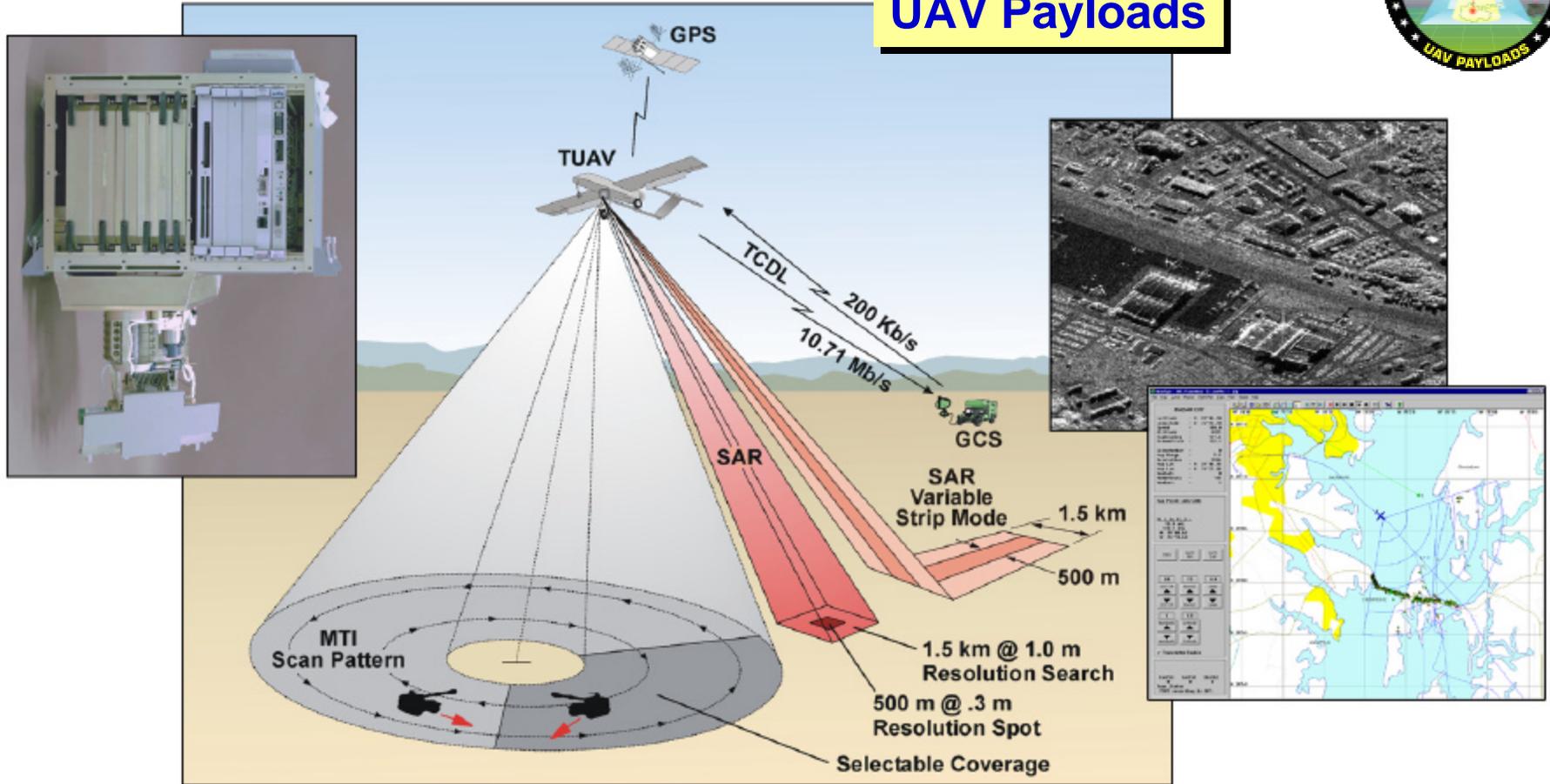
PM Robotic & Unmanned Sensors



Current Business



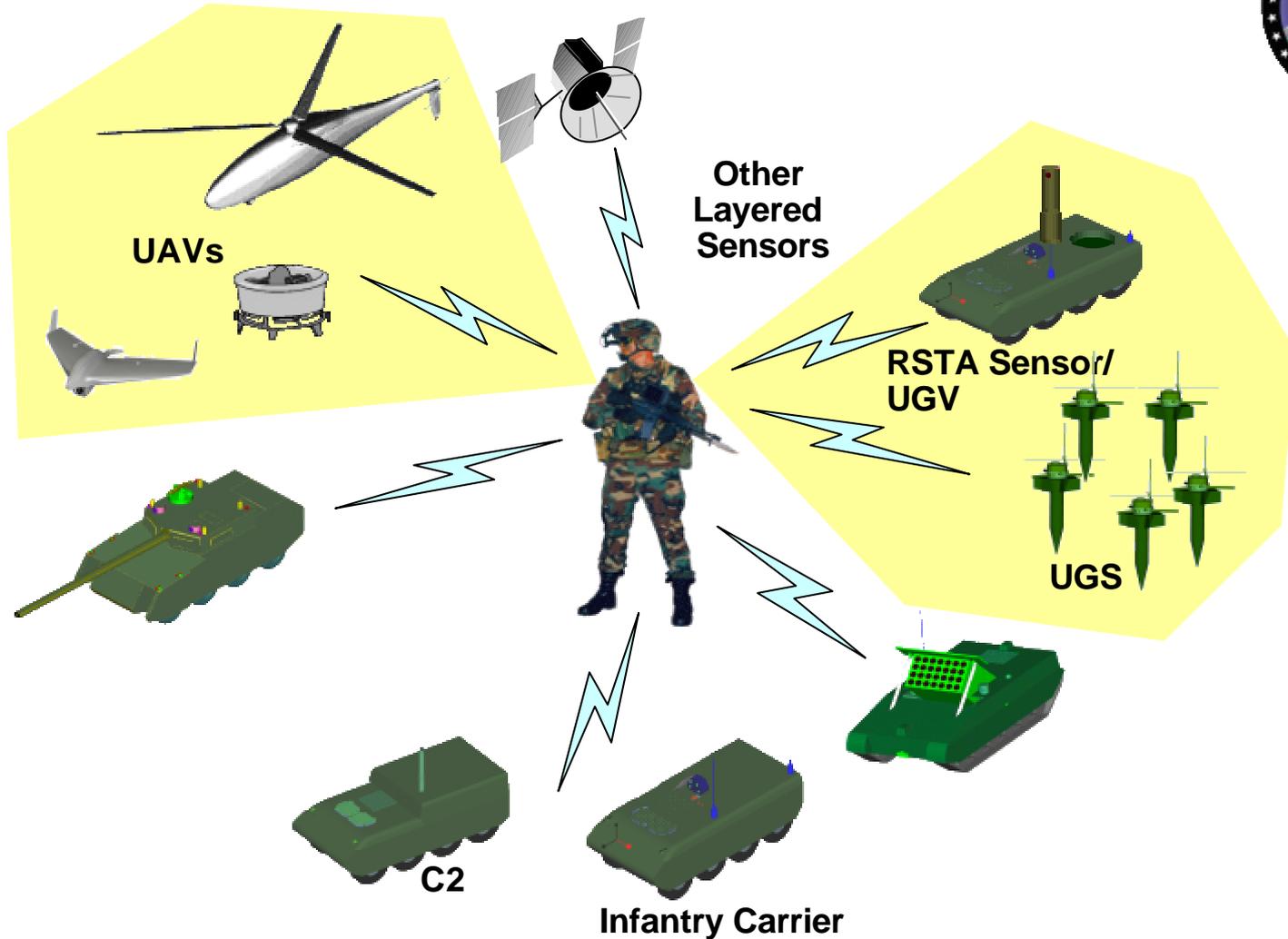
UAV Payloads



Synthetic Aperture Radar/ Moving Target Indicator (SAR/MTI)

Robotic & Unmanned Sensors

Future Opportunities





**Firefinder
(AN/TPQ-36(V)8)**



**Firefinder
(AN/TPQ-37(V)8)**

Artillery Locating Radar



**Increased
Targeting
Accuracy**



**Firefinder
(AN/TPQ-47)**

Future Programs

Uncooled Lightweight Thermal Module – B-Kit



Figure 1 – Boeing Microbolometer

Figure 2 – Nytech Camera Core



Some Examples

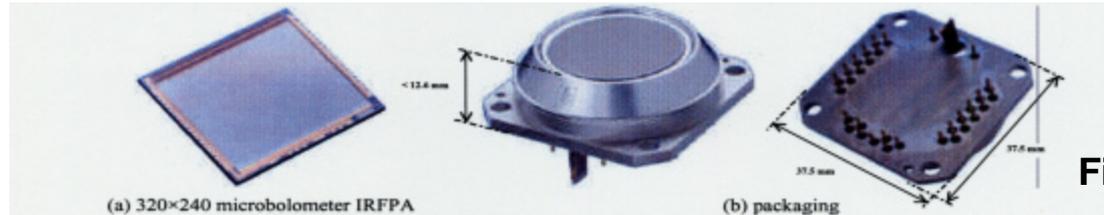
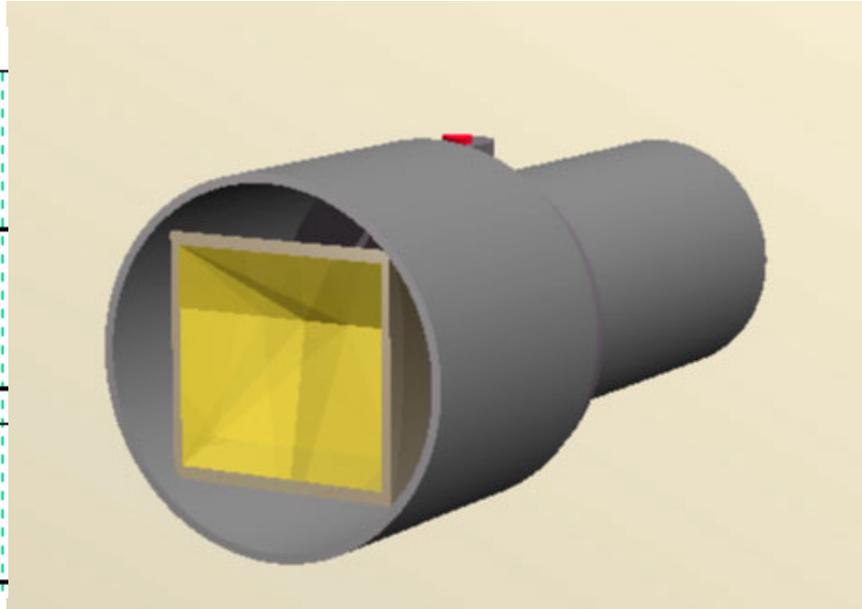
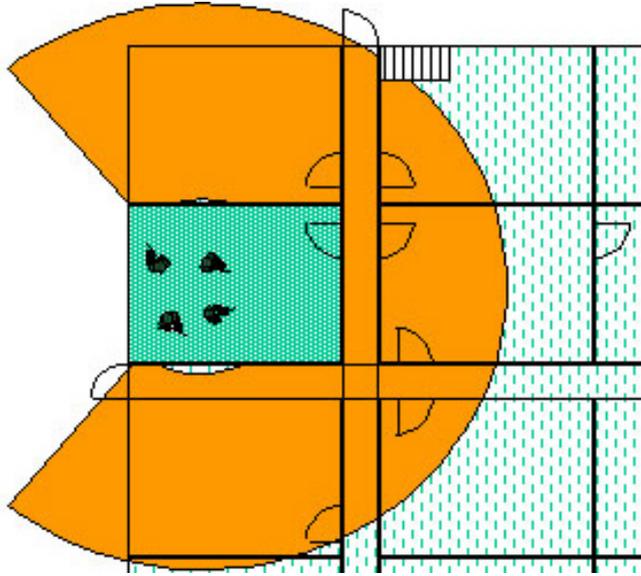


Figure 3 – Sofradir Microbolometer

- Uncooled B-Kit is a light weight, infrared module, that interfaces to the optics and electronics of various systems.
- Presently no standard exists for the lightweight thermal detector in industry. These thermal detectors are different from each other and can only be used with specific optics and electronics.
- The development of a lightweight thermal detector B-Kit standard will encourage competition and reduce costs.

Hand Held Sense through the Wall (STTW) Scanner



- Hand Held STTW Scanner is a light weight, stand alone, STTW device that provides infantry the capability of detecting people through building walls, ceilings, and floors.
- Hand Held STTW Scanner is the first in a series of STTW devices leveraging technologies assembled in National Institute of Justice coordinated research.
- Follow on STTW devices will provide enhanced capabilities on vehicular and unmanned platforms through HTI.

Thermal Omnibus II TWS Characteristics



- **Lightweight Day/Night Thermal Target Acquisition System**
- **Operates in Adverse Weather and Dirty Battlefield Conditions**
- **Provides Surveillance and Target Acquisition Capability for Individual and Crew Served Weapons**
- **Light and Medium Versions:**

	<u>Light TWS</u>	<u>Medium TWS</u>
Weight (lbs.)	2 (obj.) - 3 (threshold)	3.5 – 5
Field of View (° min)	14	6/18 switchable
Range (M, clear air, man tgt)	550	1100

- **Desired Enhancements**

Lower Weight, Power, Operations & Support Costs

Increased Reliability, Range, Field of View

Path for Technology Improvement Insertion

Thermal Weapon Sight (TWS) AN/PAS-13



View Through TWS



Thermal Omnibus II DVE Characteristics



- **Thermal Imaging Device to Aid Driving of Tactical Wheeled Vehicles and Combat Vehicles**
- **Enhances Vehicle Movement During Daylight, Darkness, Adverse Weather, and Dirty Battlefield Conditions**
- **System Consists of “A” and “B” Kits Comprised of Vehicle Installation/Mounting Hardware, Sensor, and Display/Control**
- **Supports Detection of 22 Inch Object at 110 Meters**
- **Required Minimum Field of View: 20° Vertical, 40° Horizontal**
- **Desired Enhancements**
 - Increased Field of View, Better Depth Perception
 - Improved Limited Visibility Operations, High Resolution Display
 - Increased Reliability, Reduced Operation & Support Cost
 - Ability to Incorporate Technology Improvements Such As Multi-Spectral Image

Driver's Vision Enhancer (DVE) AN/VAS-5



Mounts

View Through DVE



Thermal Omnibus II Contract Opportunity



Objective:	Procurement of Light and Medium Thermal Weapon Sights (TWS) and Driver's Vision Enhancers (DVE)
Contract Type:	Firm Fixed Price, 3-Year Multi-Year w/ Basic Quantity and Options in Each Year, 2 Year Option (Total 5 Years), One or More Awards
Estimated Value:	Basic ~ \$82-92M (qtys: ~ 3500 LTWS, 2000 MTWS, 2500 DVE); Total Options ~ \$200M
Key Milestones:	1QFY03 RFP Release, 2QFY03 Contract Award, 1QFY04 First Deliveries
Technical Contact:	Mr. Daniel Kitts (TWS) 703-704-1292 Mr. Joseph Brooks (DVE) 703-704-1251
Acquisition Contact:	Ms. Deborah Gilligan 732-532-5454
Solicitation # or RFQ #:	TBD

Thermal Omnibus II TWS & DVE

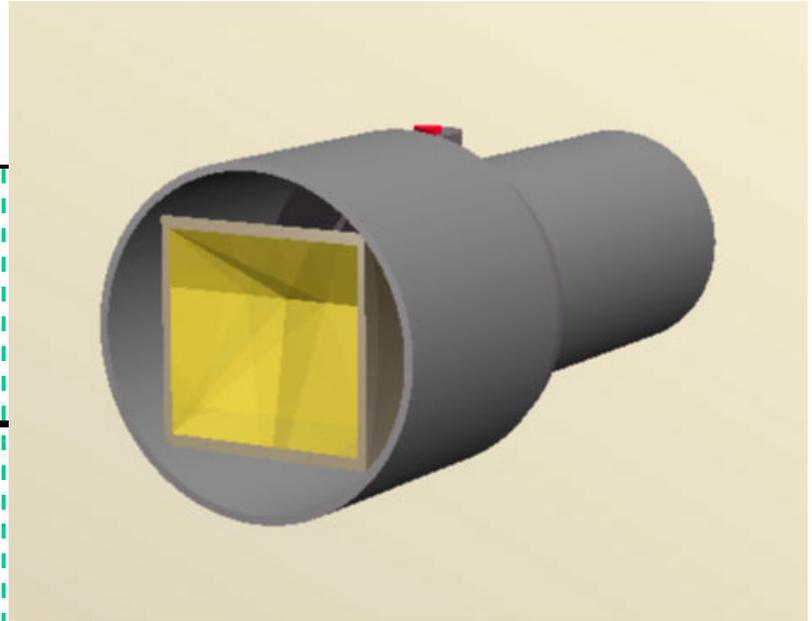
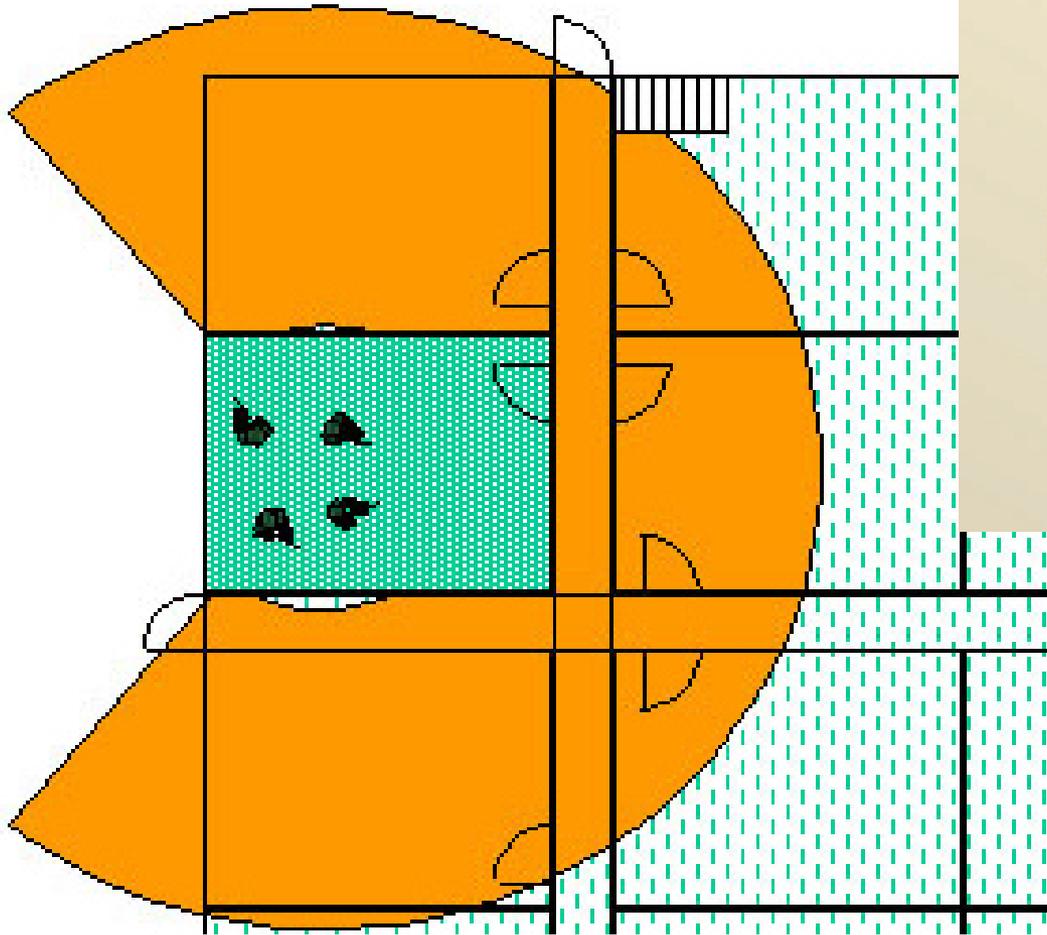


Sense Thru The Wall (STTW) Characteristics



- **Lightweight System to Detect Humans on the Opposite Side of Walls**
- **Operates in Adverse Weather and Dirty Battlefield Conditions**
- **Performs Close Range Surveillance**
- **Performance Parameters: TBD**
- **Operational Requirements Definition Underway at Ft Benning, GA.**
- **CECOM I2WD Performing Technical Management of the System Development**

Sense Thru The Wall (STTW) Scanner





Sense Thru The Wall (STTW) Contract Opportunity



Objective: Perform Concept Studies Leading to Milestone B Decision for the First Sense Thru The Wall Infantry System

Contract Type: Broad Area Announcement, One or More Awards

Estimated Value: TBD

Key Milestones: 2QFY03 RFP Release, 2QFY03 Contract Award

Technical Contact: Mr. Robin Whitworth (703)704-1391

Acquisition Contact: TBD

Solicitation # or RFQ #: TBD



**Project Manager
Night Vision/Reconnaissance,
Surveillance and Target Acquisition
ATTN: SFAE-IEW&S-NV
10221 Burbeck Road
Ft. Belvoir, VA 22060-5806**

**Comm: 703-704-3447/3450
(DSN: 654)**

**Website address-
*<http://peoiews.monmouth.army.mil/nvrsta>***